DOCUMENT RESUME

ED 118 342 RC 009 019

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TITLE Outdoor Education Guide-Handbook, Waukesha Public Schools.
INSTITUTION Waukesha Public Schools, Wis.
PUB DATE Sep 75
NOTE 80p.

EDRS PRICE MF-$0.83 HC-$4.67 Plus Postage
DESCRIPTORS *Activities; Camping; Concept Formation; *Curriculum Guides; *Elementary Education; *Field Trips; Language Arts; Lesson Plans; Mathematics; *Outdoor Education; Physical Education; Science Activities; Sensory Training; Social Studies
IDENTIFIERS *Wisconsin (Camp Phantom Lake)

ABSTRACT

Designed by the Waukesha Public Schools (Wisconsin) specifically for an elementary level three-day camping trip at Camp Phantom Lake, this outdoor education guide presents some activities which suggest adaptation. Activity directions, plans, worksheets, evaluation sheets, and illustrations are presented in sequential order for the following disciplines which, by design, frequently overlap: (1) Mathematics (activities involving measurement of height, distance, hills, triangles)-; (2) Social Studies (activities involving map and compass skills via use of a compass trail); (3) Science (scientific observation using a "micro trail" approach, observation tools, and sensory skills); (4) Language Arts (an activity Progressing from meditation to creative writing and including discussions, sketching, water color painting, pantomiming, and poetry); (5) Physical Education (frisbee toss, run and summersault relay, endurance race, football throw, leap frog, kickball, and tug of war). Indicative of the variety of activities presented are: (1) a candlelight ceremony designed to offer students opportunity to express a "gut" feeling to the group; (2) a section on water pollution testing (chemical analysis, filmstrip, and questions); (3) a guide to making a "friendship stick" (emphasis on symbolic significance). Also included are a 46-item awareness test and the necessary school forms for such an outing. (JC)

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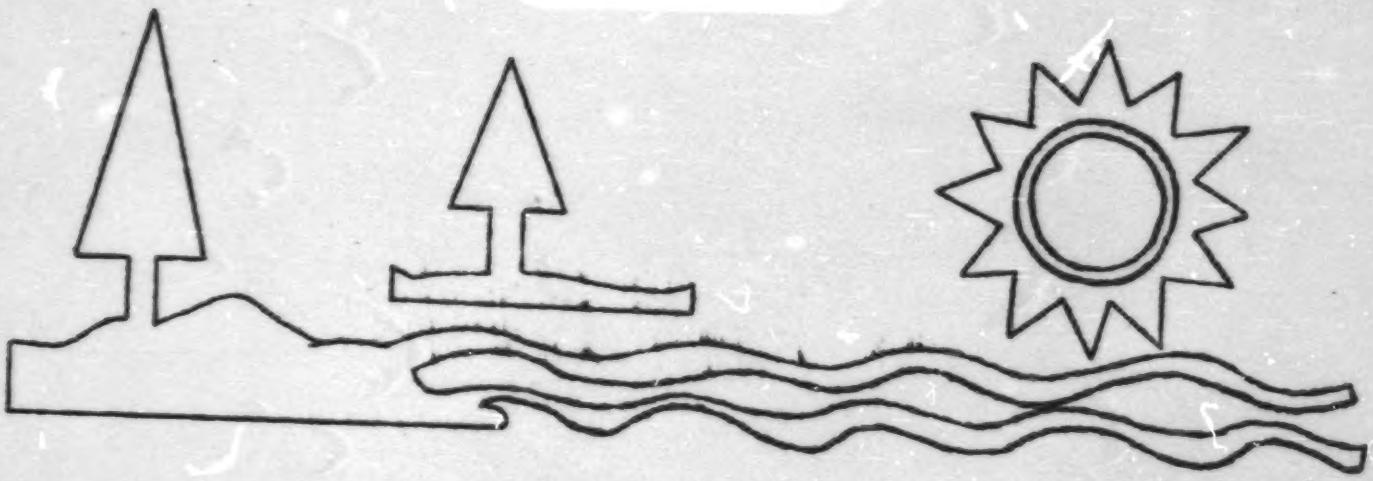


Waukesha Public Schools

OUTDOOR EDUCATION

Guide - Handbook

Joseph A. Vitale
September 1975

Waukesha Public Schools
222 Maple Avenue
Waukesha, Wisconsin 53186

RC009019

WAUKESHA PUBLIC SCHOOLS
Outdoor Education

1st Day

9:00 - Load bus at school

9:30 - Leave school, depart for camp

10:00 - Arrive at camp, receive tent assignments, unload bus, prepare tents

10:30 - Assemble in dining hall, distribute clipboards and needed materials

10:45 - Orientation Hike

12:00 - Tablehoppers, Lunch prep, free time

12:15 - Lunch

12:45 - Lunch clean-up, free time

1:00 - Math Block

4:30 - Physical Education

5:25 - Flag Lowering

5:30 - Tablehopper, supper prep, free time

5:45 - Supper

6:15 - Supper clean-up, free time

6:30 - Group Probes

7:00 - Skit Practice or Sounds at Camp

7:30 - Tie-dying

8:00 - Movie

9:00 - Quiet Walk - Viewing Party

9:30 - Lights out - Absolute Silence

2nd Day

7:30 - Tablehoppers rise

7:45 - Rise, Tablehoppers, breakfast set-up, wash, dress, etc.

8:10 - Flag Raising

8:15 - Breakfast

8:45 - Breakfast clean-up, tent clean-up

9:00 - Tent inspection

9:30 - Social Studies

11:00 - Language Arts

12:00 - Tablehoppers, lunch set-up, free time

12:15 - Lunch

12:45 - Lunch clean-up, free time

1:00 - Group Probes

1:30 - Phantom Team Trail

3:30 - Relay Race

4:00 - Arts and Crafts

- Flag Lowering

- Tablehoppers, supper set-up, free time

5:45 - Supper

6:15 - Tablehoppers

6:30 - Group Probes

7:00 - Skit Practice or Song Practice

7:30 - Parents Night: Skits and Candlelight Ceremony

9:30 - Lights out - Absolute Silence

3rd Day

7:30 - Tablehoppers rise

7:45 - Rise, Tablehoppers, Breakfast set-up, wash, dress, etc.

8:10 - Flag Raising

8:15 - Breakfast

8:45 - Breakfast clean-up, tent clean-up

9:00 - Tent inspection

9:30 - Water Pollution Tests

11:00 - Small group rap sessions about Water Pollution Tests

11:45 - Tableboppers, lunch prep, free time

12:00 - Lunch

12:30 - Lunch clean-up, camp clean-up

12:45 - Hand lens hike and/or Micro Trails

2:00 - Load bus, depart for school

2:30 - Arrive at school

Orientation Hike

The Orientation Hike is designed to acquaint the student with the physical layout of the camp.

It is also intended to:

alert the student to positive and negative conservation practices.

provide an opportunity for observation of the forest, water, wildlife and signs of wildlife, minerals and soil.

provide an opportunity to observe similarities and differences of trees, plants and the topography.

provide an opportunity to begin acclamating to their new classroom.

provide an opportunity to become better acquainted with their academic group and their academic leader.

provide an environment in which the student, through self-motivation, can begin to develop an aesthetic awareness of the out-of-doors.

The following areas should be pointed out to each student during the Orientation Hike.

Erich Lodge
Alford Lodge
Green Mansion
Health Lodge
Hilton Lodge
Raggers Point
Tent area
Swamp
Toboggan Hill
Totem Pole
E-W-N-S Boundaries
Gravel Pit
Ranger's House
Horse Stables
Boathouse
Tennis Courts
Play Field
Chapel

Utilize Alphabet Observation Sheet during Orientation Hike.

Alphabet Observation Hike

Plant	Animal	Mineral
A	A	A
B	B	B
C	C	C
D	D	D
E	E	E
F	F	F
G	G	G
H	H	H
I	I	I
J	J	J
K	K	K
L	L	L
M	M	M
N	N	N
O	O	O
P	P	P
Q	Q	Q
R	R	R
S	S	S
T	T	T
U	U	U
V	V	V
W	W	W
X	X	X
Y	Y	Y
Z	Z	Z

MATH

The ODE math program is intended to provide math activities which are better performed in the out-of-doors. These activities are designed to be of a practical nature which will provide the student with a usable knowledge and practical skills which can be used and broadened in future endeavors in the out-of-doors.

These activities are intended to improve the students' knowledge in the areas of:

measurement
relationship of math to everyday living
ability to estimate
application of math skills to first hand experience in the out-of-doors

Temperature Measurement

Air, water and soil temperatures are taken to discover if the three environs differ. Variables involved in temperature differentiation are discussed: shade, sun, depth of water, length of time thermometer was in soil, air or water, etc.

All measurements are recorded in celcius scale. Conversion from celcius to F°:

$$\frac{9}{5} \times \frac{c}{1} + 32^{o} = F^{o}$$

Distance Measurement (step-meter ratio)

By developing expertise in pacing one is able to measure off distances without an actual measuring tool, a step-meter ratio should be established.

Any step-meter ratio is acceptable as long as it is natural, comfortable and understood by the child.

One step equals one meter is obviously the easiest to work with but any other ratio is acceptable. For example, if a child takes 12 steps to each 10 meters his ratio will be $\frac{12}{10}$. If a student is directed to go 50 M. he would establish this ratio $\frac{12}{10} = \frac{?}{50}$. This child would need to take 60 steps to cover 50 M. Sixty steps is derived at by determining that 10 x 5 = 50 M., therefore 12 x 5 = 60 steps. Simply taking a fraction out of lowest terms.

If this same student proceeds from point A to point B and takes 96 steps the following ratio is used, $\frac{12}{10} = \frac{96}{?}$. Again, 12 x ? = 96 (8) therefore 10x8 = 80 M. Notice Steps in numerator, meters in denominator.

TEMPERATURES

Soil	Air	H_2O	Remarks

Compass Measurement

This aspect of the math block is to instruct the student in the use of a compass. The areas of concentration are in compass orientation, taking headings and measuring the angle between two points in the distance.

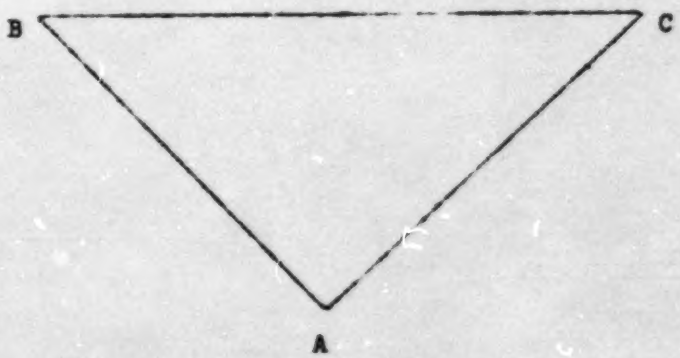
Compass orientation is simply lining up the rotating compass needle with the N (north direction arrow) on the compass.

Taking a heading is proceeding at a determined degree after compass orientation takes place. Such as 270° heading after orientation of the compass one heads out in the direction pointed out by the 270° mark on the compass.

Measuring the angle between two points in the distance while standing at a third point (forming a triangle) is taught in this manner.

While standing at point A the compass is oriented and a heading is taken on point B. The same is then done for point C.

Let us suppose that point B was a heading of 290° and point C a heading of 200°. Subtracting 200° from 290° tells us that the angle formed at vertex A is 90°.



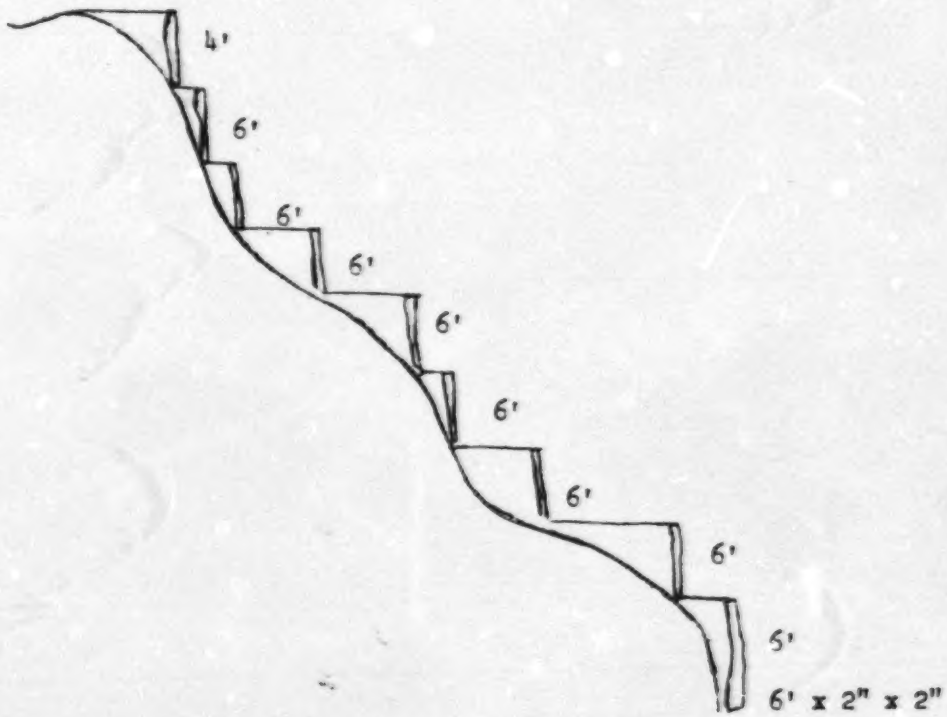
Hill Measurement

Included in hill measurement will be both the height of the hill as well as the degree of slope of the hill.

The degree of slope is measured with a clinometer. While laying on the ground at the base of the hill the clinometer is aimed at the top of the hill. A reading is taken indicating the degree of slope.

The height of a hill is measured in this manner: a six foot stick (2" x 2" x 6'), some 6" stakes and string are needed. The 2 x 2 is placed at the base of a hill. A string runs from the top of the 2 x 2 to the hill. A 90° angle is formed by the string and the 2 x 2. Where the string meets the hill a stake is driven into the ground. The 6 foot stick is now placed next to the stake. The same procedure is followed until the top of the hill is reached.

The six foot stick should be marked off in 1 foot segments. Upon reaching the top of the hill it is possible that a full six feet on the 2 x 2 will not be used. A right angle is formed with the string and 2 x 2 and the 2 x 2 is measured at this point. Each stake represents six feet. The stakes are added together plus a possible portion of six feet from the final measurement.



Height of Objects

Four different approaches are used, when possible, to measure the height of objects such as buildings or trees: the Artist's method, the Shadow method, the 11-1 ratio method and the Pathagorian therom. An example and explanation of each follows.

Tree Measurements

- circumference - distance around a circular object.

- diameter - straight line passing through the center of a circle from one side to the other. ($C = 2\pi r$). We will use this formula: 1/3 of C = d

- radius - one-half of the diameter.

MEASUREMENTS

FOUR WAYS TO ESTIMATE HEIGHTS

I. USING THE SHADOW RATIO METHOD:

Procedure:

1. Place stick of known length perpendicular to the ground and measure the length of the shadow.

2. Measure the shadow cast by object to be measured.

3. Solve this proportion:

$$\frac{\text{Shadow of object}}{\text{Shadow of the stick}} = \frac{\text{Object's height}}{\text{Stick's height}}$$

Example: 4 ft. stick casts 2 ft. shadow

$$\frac{10}{2} = \frac{\text{Tree (object) height}}{4} \qquad \text{Object casts 10 ft. shadow}$$

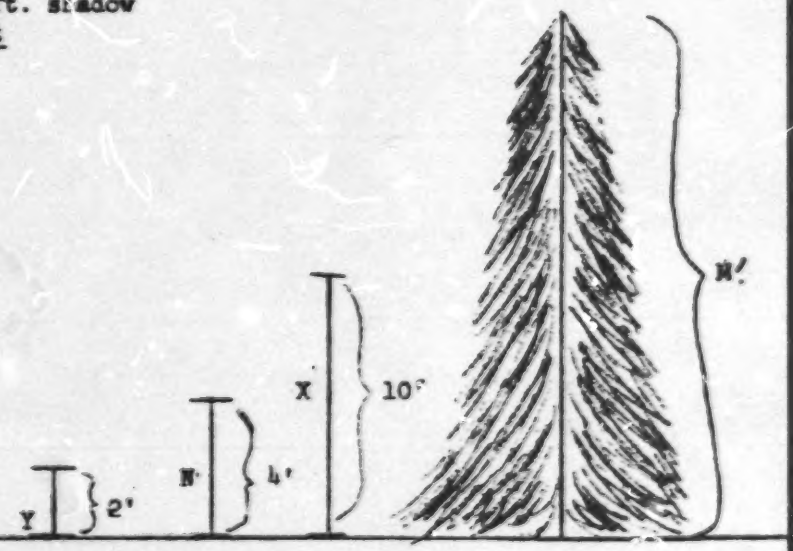
I. Shadow Ratio Method

$\frac{X}{Y} = \frac{M}{N}$

N = 4' stick
X = 10' shadow of tree
Y = 2' shadow of stick
M = ? height of tree

$\frac{10}{2} \quad \frac{X}{4}$

Therefore X = 20'



II. ELEVEN TO ONE RATIO OR SIMILAR TRIANGLE

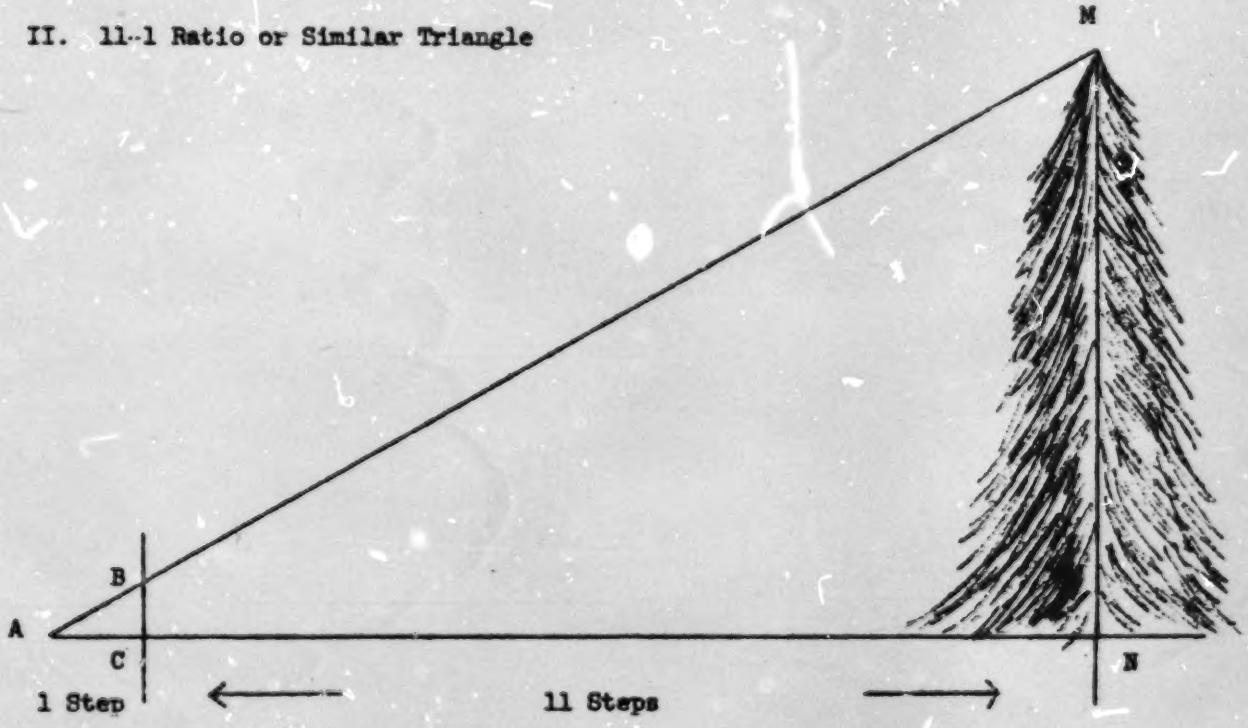
Procedure:

1. Walk eleven paces from the base of a tree or object and push a stick into the ground.

2. Continue one pace farther and place a mark. At this point lie on the ground and sighting with the lower eye, project a line by the stick to the top of the object.

3. The height of the stick in inches where the projected line passed is the height of the object in feet.

II. 11-1 Ratio or Similar Triangle



Similar triangles - Similar triangles are two triangles in which:

1. All the corresponding angles are equal (ABC = AMN).

2. All the ratios of the measures of the corresponding sides are equal.

FOUR WAYS TO ESTIMATE HEIGHTS (cont'd)

III. THE ARTIST'S METHOD

Procedure:

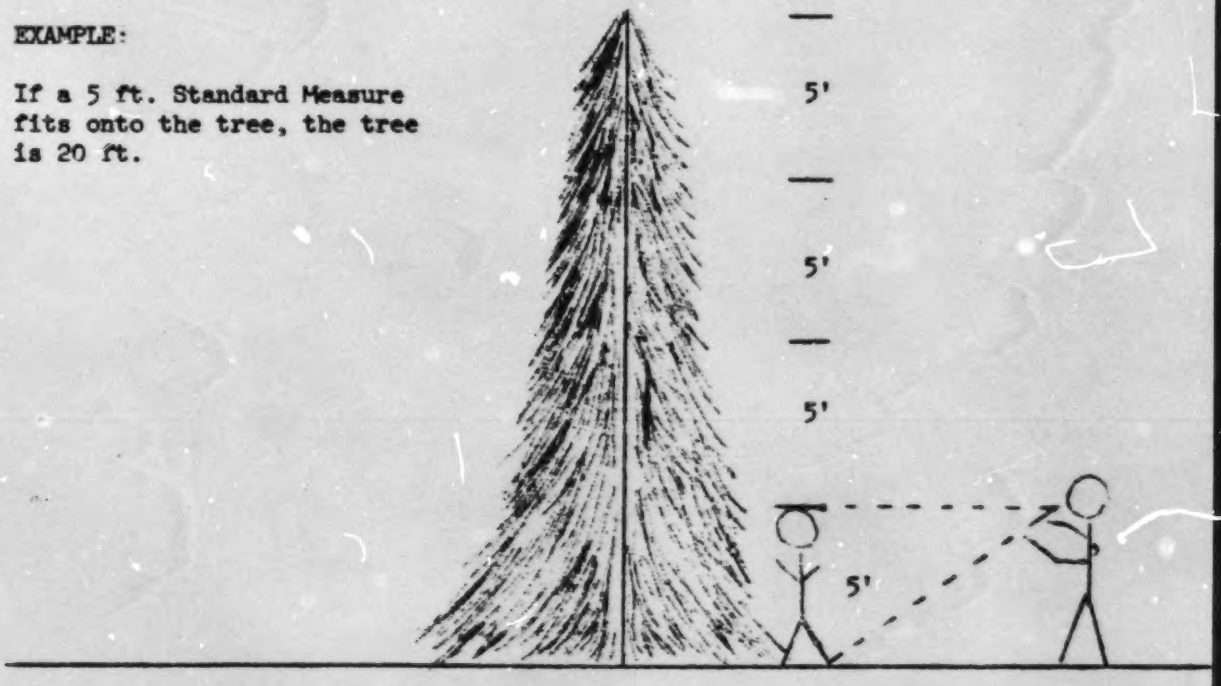
1. Have a person whose height is known stand by the object to be measured. A person who is 4 ft. 6 in., 5 ft., or 5 ft. 6 in. tall, makes the computation much more simple. This person is the Standard Measure.

2. Hold a stick at arm's length. Sight over the top of the stick to the head of the Standard Measure. Place the thumb on the stick where the line of sight meets the foot of the Standard Measure.

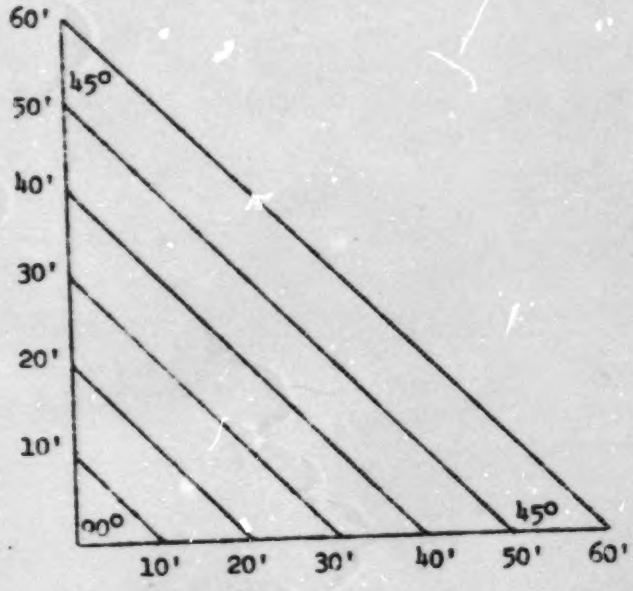
3. Find how many times the Standard Measure fits onto the object being measured by moving the stick upwards a standard measure at a time.

EXAMPLE:

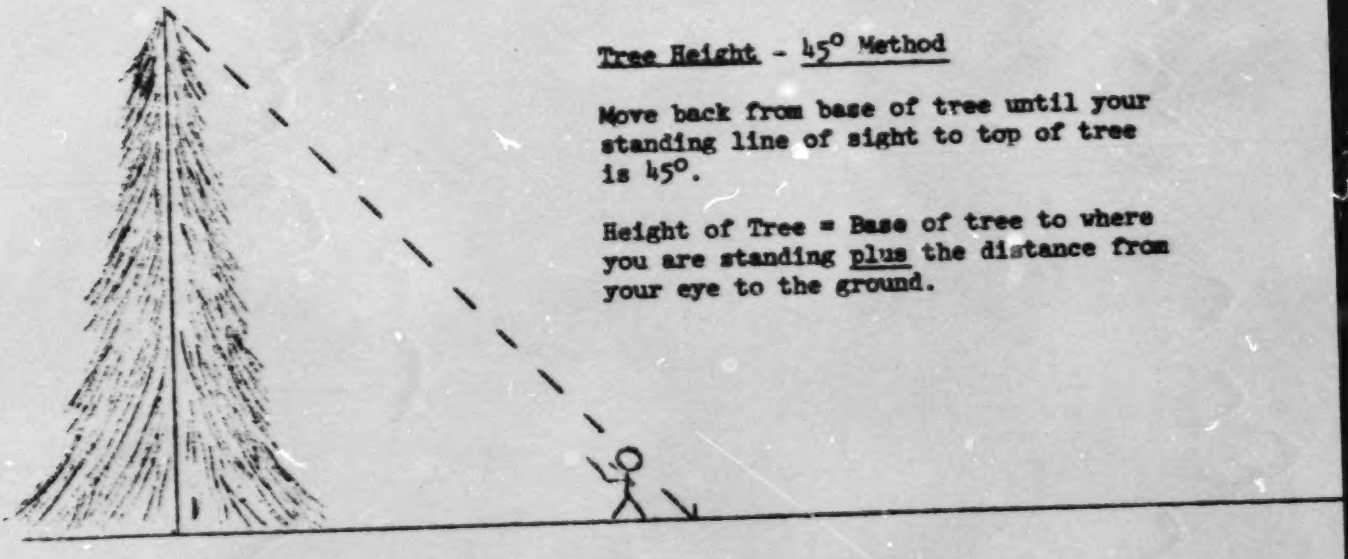
If a 5 ft. Standard Measure fits onto the tree, the tree is 20 ft.



IV. Tree Height - 45° Method



Method Based On: Right Triangle
Side Squared + Side Squared = Hypotenuse Squared



Tree Height - 45° Method

Move back from base of tree until your standing line of sight to top of tree is 45°.

Height of Tree = Base of tree to where you are standing plus the distance from your eye to the ground.

SOCIAL STUDIES

Social Studies encompasses a broad spectrum of desired areas of accomplishment. Generally it is desired that the following be realized:

an understanding of democratic procedures and group processes.

an understanding of the relationship between man and his environment.

an understanding of some of the socio-economical needs of man.

More specifically broken down into academics, Social Studies encompasses mapping and a compass trail.

The student is provided with an outline map of the area. He attempts to achieve the following:

1. Locate any point on the map with reasonable accuracy.
2. Know what symbols are, develop his own symbols and place them on his map to point out areas or things of importance.
3. understand and develop a key to explain his symbols.

The symbols are placed on his map and a key is developed.

The second phase of Social Studies involves a compass trail. All of the skills obtained in math are applied on a practical basis. A copy follows.

SOCIAL STUDIES

Mapping

Key to symbols already on outline map:

------- gravel road around island

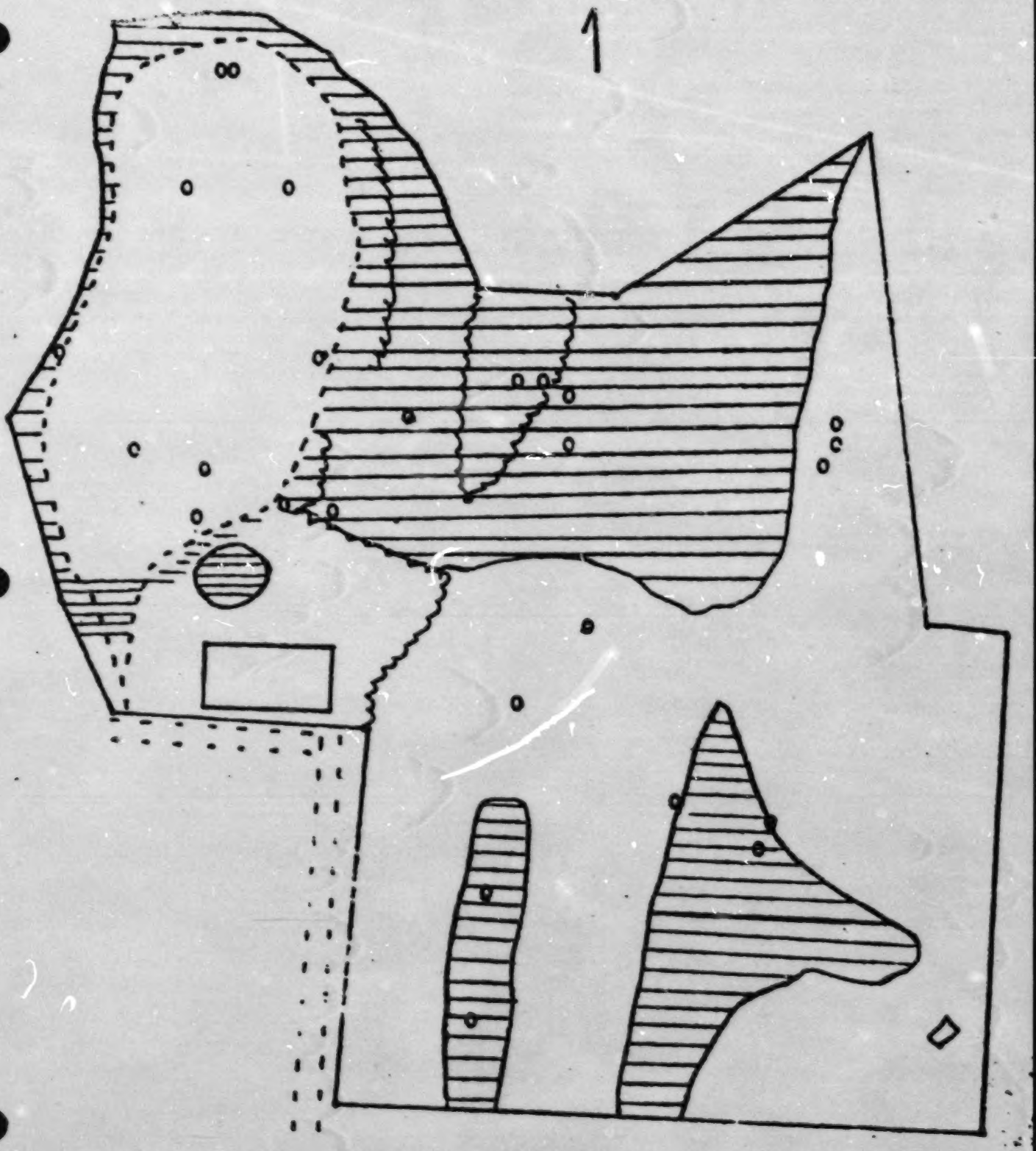
brush line

Phantom Team Trail

low areas

Identify the following locations, establish symbols, place them in a key:

1. Erich Lodge
2. Alford Lodge
3. Boathouse
4. Green Mansion
5. Health Lodge
6. Hilton Lodge
7. Your sleeping area
8. The Playfield
9. Swamp
10. Raggers Point
11. Tobbogan Hill
12. Totem Pole
13. Tennis Courts
14. Chapel
15. Horse Stables
16. Gravel Pit
17. Southern Fence Line
18. Rangers House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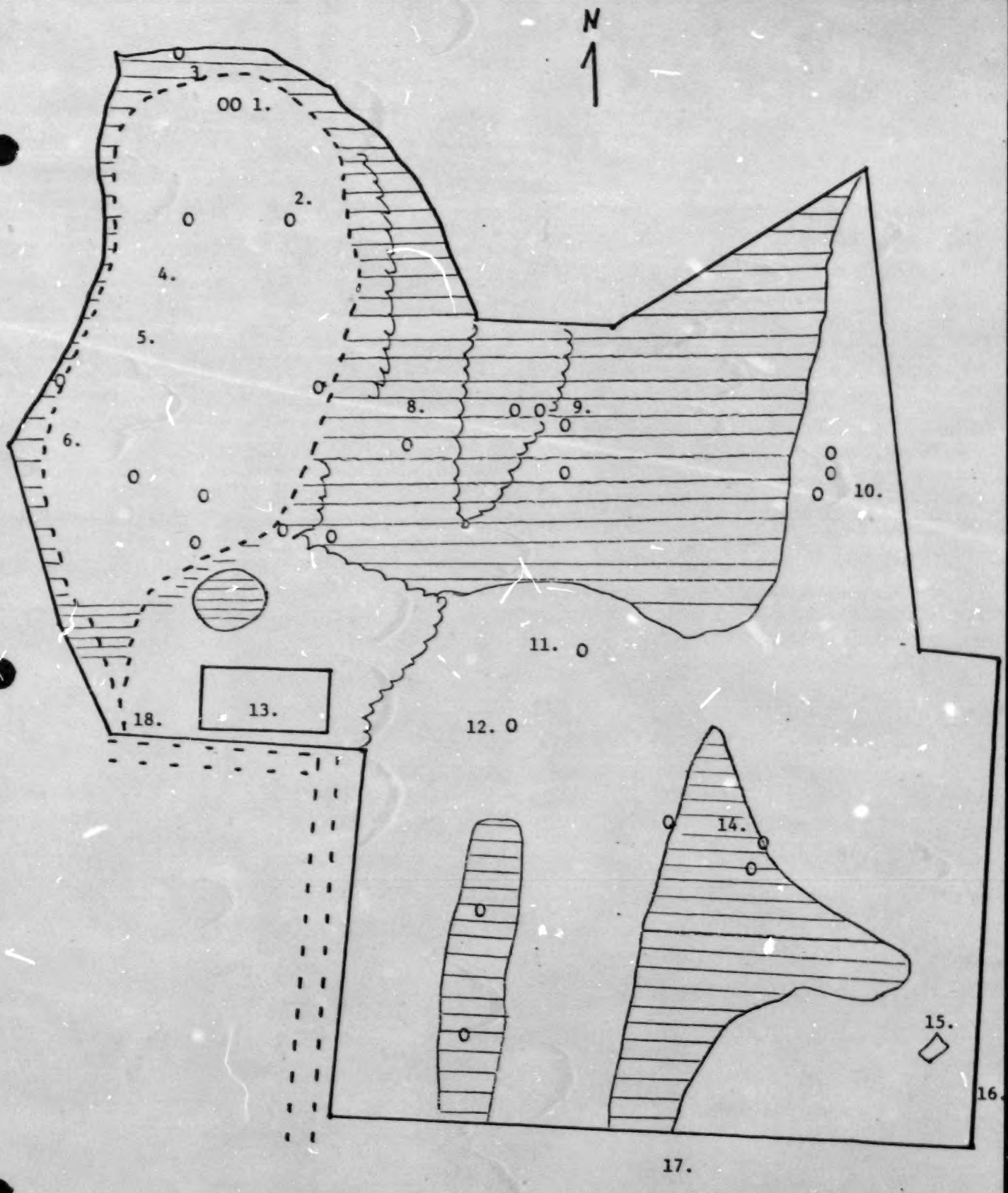
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1.
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18.

WAUKESHA PUBLIC SCHOOLS

Compass Trail (2)

1. Orient compass at Welcome to Phantom Lake sign near parking lot. Orient to a heading of 70°. Sight Martin House. Estimate the distance down the road to the Martin House. Pace off distance. (80m)

2. Measure circumference of the tree with Martin House. Measure at saw mark. (1m 80cm)

3. Orient compass at this tree. Take 140° heading. Go 25 M. (Rifle Shack)

4. Standing at N.W. corner of brown building, sight the bush on bottom of Toboggan Hill. What's the heading? (100°) What's the distance? (70m)

5. From bush on bottom of Toboggan Hill, sight the dead, brown, White Pine at a 70° heading. What is the distance between the dead tree and the bush? (48m)

6. Using clinometer measure height of dead White Pine. (18')

7. On South side of dead White Pine, sight the fallen Oak Tree at a heading of 80° and a distance of 95M. Proceed to the fallen tree. Take soil temperature and air temperature.

8. From this area, what heading would you take to get directly to Alford Lodge? (Approximately 290°)

9. Stand at base of Oak Tree, S.E. side, which has a large scar from loosing a branch. Orient compass to a heading of 122°. Sight Oak Tree standing on highest point in front of you. Proceed there. (At Raggers Point)

10. This is Raggers Point. Observe only with your eyes. Leave stones in position.

11. Find 2 sticks about 50 cm. each. Cross them so that each end of a stick points to a specific direction. N-S-E-W.

12. Stand on exposed root of Oak Tree (big, round knot). What heading would you take to the horse stable? (Approximately 170°).

13. Proceed southerly down trail about 100m. Call this point Y. Head west to chapel.

14. Standing in front of chapel, facing East, using chapel as base, measure the height of the hill. Also, choose a hill and measure the degree of slope.

15. Standing behind pulpet, orient to a heading of 142°, identify object 8m away. Measure circumference and diameter 1 meter up from ground. (Large Oak -- C = 3m, D = 1m.

16. Proceed to horse stable.

17. Standing at metal water trough, find 3 large silos and one small silo. What heading to the silos? (240°)

18. From water trough, proceed downtrail in a S.W. direction for 57m. At this point, what happens to elevation of trail and direction of trail? (elevation go down -- direction changes to N-NW) Proceed on trail 130m. At this point, what direction are we traveling and what heading? (240°)

19. Continue along trail to totem pole.

20. If you were standing at the silos, what would be your heading to the totem pole? (40°)

21. Standing at totem pole, face the lake. Locate Brown and Yellow Building across lake. Take its heading. (335°)

22. Proceed North to bottom of Toboggan Hill.

23. Take soil and air temperature in swamp area.

24. Proceed N.W. to Director's cottage.

25. Proceed to lake for a water temperature. After taking water temperature, return to cement steps leading to Director's cottage.

26. Proceed along road in a southerly direction for 200m. Stay on road. Where are you? (Starting Point)

PHANTOM TEAM TRAIL

1. (In Alford Lodge)

   From the weather station in Alford Lodge, record the following:

   Wind direction _____

   Temperature _____ o

   Barometer _____ . _____

   Wind speed _____ mph

   Wind chill factor _____ o

   24 hour high _____ 24 hour low _____

2. Facing NE, there is a large dead tree with a Martin house atop.

   What is the heading to that tree? _____

3. Using the clinometer and tape measure what is the height of this pine tree? _____ feet.

4. What is the circumference of this tree at the saw mark?

   _____

5. A four sided figure or a building could be a square or a rectangle. A square is a four sided figure with all four sides equal. A rectangle is also four sided but all four sides need not be equal. What is the measurement of each side of the Riflery Hovel.?

   West_____ South_____ East _____ North_____

   Is the Riflery Hovel a square or a rectangle?_____

   The perimeter of a building is the distance around or the total of the four sides.

   What is the perimeter of the Riflery Hovel? _____

6. Place your clipboard on the top of this post with your compass on the clipboard. Set your compass to a reading of 80°. Observe the lone pine tree 80 meters away. His name is Solo.

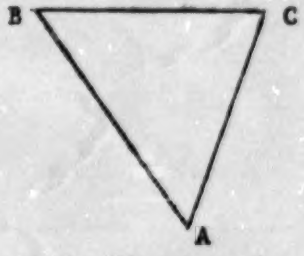
   Needles on a White pine grow in clusters of 5. Needles on a Red pine grow in clusters of 2. Walk over to Solo. Observe his needle clusters.

   Solo is a _____ pine tree.

7. 7a is the top of the hill. 7b is the base of the hill. What is the

   height of the hill? _____ feet.

8. Station 8 represents point A. The flag pole near Alford Lodge represents point B. The building across the lake with a red roof, brown sides, yellow pillars and a beer sign on the roof represents point C.



   From point A, what is the heading to point C? _____

   From point A, what is the heading to point B? _____

   What is point B subtracted from point C? _____

   Your difference tells you the degrees of ∠ BAC.

9. (In Erich Lodge)

   Very cautiously smell what is in each vial.

   Identify the smell of each vial.

   1. 5.

   2. 6.

   3. 7.

   4. 8.

10. READ TOTAL DIRECTION BEFORE BEGINNING.

Very cautiously (nothing bites) without peeking in the bag (that's a no-no) taking turns with your teammates, grab one object in the bag, feel it, identify it, record it on your answer sheet, take the object from the bag, look at it and place it in the second bag. Do this with each object.

1. 6.

2. 7.

3. 8.

4. 9.

5. 10.

11. Within a radius of 5 meters of this station take one soil temperature.

_____ °C.

12. Take an air temperature. _____ °C.

13. One meter up from the ground measure the circumference of this tree.

With that information determine the diameter. _____.

Also calculate the radius. _____.

14. 14a is the top point of the hill. 14b is the base of the hill.

Using the clinometer measure the degree of slope of this hill. _____°.

15. (Erich Lodge)

READ DIRECTIONS BEFORE BEGINNING.

Turn recorder on. Listen to the animal sounds. Record each animal sound you hear.

1. 4.

2. 5.

3. 6.

16. Measure the air temperature. _____°C.

17. Measure the soil temperature. _____°C.

18. Measure the water temperature. _____°C.

19. Measure the water temperature. _____°C.

20. From this point what is the heading to the flag pole near Alford Lodge?

21. This is Raggers Point. Observe the beauty of nature surrounding you. Leave all stones in position.

22. Determine the direction from which the wind is blowing.

From the _____.

23. Stand on the exposed root of the Oak tree. (big round knot). What is the heading to the horse stable? _____°.

24. If you were standing at the silos, what would your heading be to the totem pole? _____°. What is the heading from the totem pole to the silos? _____°.

25. After reading Station 25, tell the four basic needs of life.

_____, _____, _____, _____.

We call light, air, water and soil the four basic NEEDS of life because without them life as we know it could not exist. The NEEDS of life are the four things that make life on earth possible. Plants use the four basic _____ of life to produce food. Green plants contain green FOOD-MAKING parts which give them their color. All GREEN plants have these _____ - _____ parts. Most living things which contain food-making parts are _____ -colored. These food-making parts allow plants to change LIGHT energy from the sun into a type of energy they can use for growth and store as food. To do this, they also need AIR; WATER; and SOIL. The basic needs for plant life, then, are _____, _____, _____, and _____.

26. You have seen that one of the needs of all life is water. Water moves in a cycle of life--from the earth to the sky and from the sky back to the earth. Part of this water goes through the plant and animal life of the earth. The AMOUNT and type of water for any animal or plant in the CYCLE helps to make up its CONDITIONS for life. The amount and type of any of the four needs of life help set the conditions for life in an area. The amount of PRECIPITATION in an area determines the kinds of plants that can grow there. Plants that need very little WATER have ADAPTED to dry areas. Those that need a great deal of water are _____ to areas of greater rainfall--they have grown to fit the areas that have more water. Has this tree adapted to the water conditions? _____

27. Water is always moving. The air is always moving, too. WIND is air in motion.

Pause and listen to the wind. Whatever lives in an area must be adapted to the CONDITIONS for life in that area. In a windy area, they must be adapted to the AMOUNT and TYPE of one of the basic needs of life--air. The _____ and _____ of each of the basic needs of life helps make up the conditions for life in any area.

TEAM MEMBERS:

_____

_____

_____

PHANTOM TEAM TRAIL

ANSWER SHEET

STATION 1.

Wind direction _____

temperature _____ °

barometer _____ . _____

wind speed _____ mph

wind chill factor _____ °

24 hour high _____ °

24 hour low _____ °

STATION 2.

_____ °

STATION 3.

_____ feet.

STATION 4.

_____ . ___ cm.

STATION 5.

West _____

East _____

South _____

North _____

Square or rectangle

Perimeter _____

STATION 6.

_____ pine tree

STATION 7.

_____ feet

STATION 8.

point C _____ °

point B _____ °

difference _____ °

STATION 9.

1. 4.
2. 5.
3. 6.

STATION 10.

1. 6.
2. 7.
3. 8.
4. 9.
5. 10.

STATION 11.

_____ °C.

STATION 12.

_____ °C.

STATION 13.

diameter _____

radius _____

STATION 14.

_____°

STATION 15.

1. 4.

2. 5.

3. 6.

STATION 16.

_____°C.

STATION 17.

_____°C.

STATION 18.

_____°C.

STATION 19.

_____°C.

STATION 20.

_____°

STATION 22.

_____

STATION 23.

_____°

STATION 24.

Silos to totem pole _____°

Totem pole to silos _____°

STATION 25.

_____

_____

_____

_____

Basic Needs

STATION 26.

_____

_____

STATION 27.

_____ and _____

LANGUAGE ARTS

Language Arts could be the 'let it all hang out' area. It is the area in which students express themselves via different approaches:

meditation
discussion
sketching
water colors
pantomiming
poetry
creative writing

Suggested overall approach to a Language Arts session:

1. Allow time for students to lay down, relax and meditate with their eyes closed.

2. While meditating, the student should become totally engrossed in assuming the role of an object in nature. Any object in nature; a fly, wind, clouds, trees, rocks, soil, worm, etc., etc., etc.

3. Upon completing meditation (5-15 min.) each student should tell 'what he is.' What object in nature did each become?

4. As each child tells 'what he is' tie it together with the preceding objects. Discuss and explain their relationships to each other and their interdependence upon each other.

5. Show the importance of each object. Make each object seem totally important to nature's scheme.

6. Permit the student to now express his 'object in nature' with water colors. Use another medium for nature instead of a paint brush.

7. Charcoal sketching is another way the student can express 'his object in nature.'

8. Individually and then all together, students should pantomime their 'object in nature'. During this period of time, 'objects' should show nature's interaction between and among other objects.

9. Students may finish this activity by further expressing themselves through creative writing and/or poetry.

10. Angles--Place each member of the group in a different position or at a different angle to some object, perhaps an old stump, a tree, or a large rock. Ask each person to describe to the group what the object looks like from his vantage point. How does it look from different sides? From ground level? From a higher perspective? From far away? From very close up. (Or looking between his legs, sitting on someone's shoulders, lying on his back?) Ask everyone to rotate every few minutes, changing his angle, or ask each person to describe for the group what he sees using just two or three words. (Copy the words down for a poem.)

11. Images--Sit in a circle and pass around some natural object. As each person receives the leaf, shell, pine cone, or whatever to examine; he must describe it. But each in turn must describe it differently from the way anyone else did. Some might look at it from different angles; some might talk about its color, or its shape, its smell, its taste, its texture, or its sound. Some might even describe its feelings or its place. (You may want to call out "pass" every couple of minutes to regulate the pace.) When all have finished with the object say: "Let's return it very carefully to its natural spot. If you ever walk by here again, you'll probably recognize it and feel as if you know it."

12. Grokking--To grok is to get to know--to try to understand--to experience. Grokking is a whole new way of looking at things, of getting to know something. In grokking, we don't just sense with our eyes and we don't just think with our heads. Grokking involves a special technique--when we grok, we're going to see with all our senses. Instead of just thinking with our heads, we're going to think with our whole bodies. We'll pretend we're a different kind of creature from another planet. Our hands are very sensitive: rub the palms of your hands together for a minute. When we grok, our hands are always flat. Our fingers aren't able to grasp any more. You can pat or stroke with the palms or the backs of your hands. You can also touch very gently with your tongue, or brush with your nose or cheek or ear. You can use the other parts of your body, too, like your back or your stomach. Compared with hands, the skin on other parts of your body is more sensitive. Feel the skin on the inside of your arm--see how much more sensitive it is than your hand skin? You can hug the tree to grok. Usually when we try to sense something, our senses are mostly concentrated in our heads. Now, we're going to shift the focal point from the head to the whole body by masking off one sense. We'll put on these blindfolds and 'see' with our feet. Put your eyes on your big toes. When the initial contact is made, the grokking begins--and the campers are both interested and perplexed by what the palms of their hands, their noses, ears, tongues and cheeks are telling them.

13. Interviews--The student chooses some natural object to interview. The student becomes the interviewer and the interviewee. The results take the form of an informative newspaper article. Who, what, when, where, why, etc.

Other suggestions for creative writing:

1. Write the "Adventures" of an object (where it came from, how it got there)
2. Write about the luck of an object.
3. Write a diary or an account of what was done during the day.
4. Describe an object (natural) in great detail. (color, size, shape, texture, etc.)
5. List adjectives to describe objects. Use as a basis for discovering things.
6. Listen to sounds in the Outdoors. Then write phrases or short descriptions that will convey to the others what each sound is like to the outdoors.
7. Pick an object. Write the life story of the object.
8. Legends and myths.

Sketching Suggestions:

1. Tell the student to face any direction.
2. Student should observe carefully.
3. Student may move eyes up and down, left and right.
4. Student may not move head or body.
5. Observe for at least 30 seconds.
6. Move students to another area. Completely removed from point 30 second observation.
7. Tell students that their minds took a picture.
8. Give students sketch paper and charcoal.
9. Ask students to develop picture.

ARTS AND CRAFTS

The basic objective of this area can be stated as encouraging the child to express his imaginative ideas as well as his realistic ones utilizing materials available in nature.

SCIENCE

Science is here defined as life. All that takes place at camp is science oriented. All the subject areas thus far described lose their individual identity in the process of correlation. Hence, there is no specific orientation to science.

HAND LENS HIKE

The goal here is to provide a hand lens, an environment in which to use the hand lens, such as mossy areas, rotted logs, soil, etc. and motivation to put it all together. It is then desirous that the student will make discoveries not totally possible with the naked eye.

MICRO-TRAILS

Each student lines out his/her own micro-trail, a trail meant for crawling and peering. The first step is to collect 6-10 sticks, 6-12 inches long. Each stick is tagged with a small piece of tape, and each student receives 50 feet of string to use in marking off his/her trail. Everyone gets a pocket magnifying lens to help focus on some of the smaller features of the landscape. The sticks are used to show points of interest along the trail.

Ground rules:

1. Can't use the bottoms of your feet on the micro-trail.
2. Go slow as a slug.

MAINTENANCE CHORES

It is the philosophy of this program that this is the student's camp. In accordance with this philosophy it is then important that this be applied on a practical basis. Practical application is achieved best by providing experience in the following areas:

diningroom set-up and clean-up
tent maintenance
grounds maintenance
lavatory maintenance
equipment maintenance
personal belongings maintenance

FRIENDSHIP STICK

The wood of the Friendship Stick is alive and solid. It is curved to fit the curve of the earth. This symbolizes the friendships that can grow, as do the wonderful trees of the forest.

The green circle at the bottom is for faith--faith in one another. It is first because it is the basis of a happy, meaningful life.

The next four circles represent the races of the world. They stand close together indicating that all people are equal. Every person is capable of becoming a loyal friend.

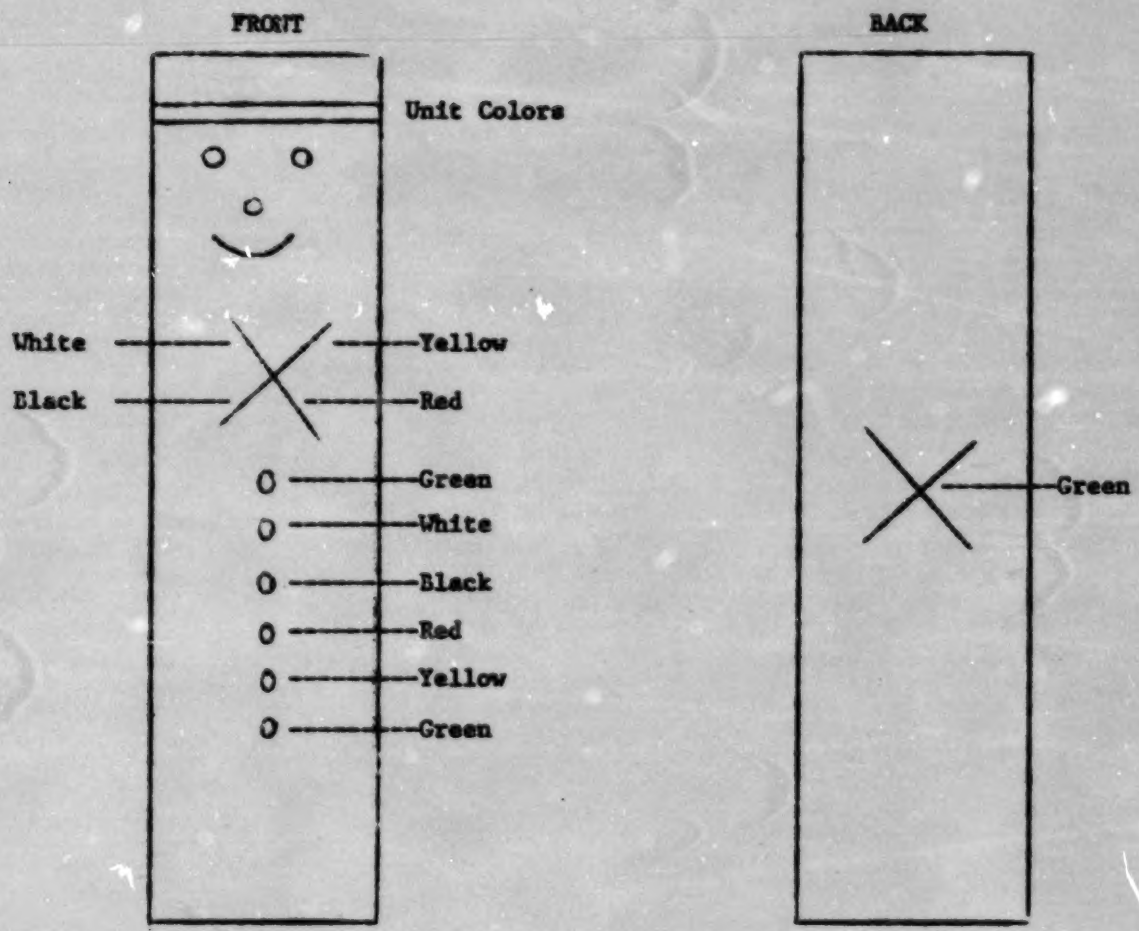
The green of Hope is above the races. It is Hope for the future. It is Hope that people everywhere will try to overcome any differences and human failings. Both Faith and Hope are green--a combination of hues, both Faith and Hope are combinations of emotional feelings we cannot adequately describe. The four races--bounded by Faith and Hope can produce unity--a working together for the good of all. The four paths lead toward a central goal, signifying the attainment of this unity.

The smiling face is the result of friendship based on Faith and Unity. It is a reminder of the person with whom we promise to be friends. To be greeted by the smiling face of a friend is one of the greatest joys we can experience.

The face is crowned by a color of your choice.

(The Friendship Stick con't)

On the back a green cross is carefully placed opposite the four races to show that Peace and Charity can exist among all people. A Friendship stick must be prepared by it's giver. It shows time and thought and effort.



		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
TEMPERATURE YESTERDAYS: HIGHEST & LOWEST	8:00 a.m. 12:00 5:00 8:00 a.m.					
BAROMETRIC PRESSURE	8:00 12:00 5:00					
WIND DIRECTION AND SPEED	8:00 12:00 5:00					
SKY COVER 2/10 Clear 2/10 8/10 Cloudy 8/10 + Overcast	8:00 12:00 5:00					
PRECIPITATION	8:00 12:00 5:00					
HUMIDITY	8 00 12·00 5:00					

OUTDOOR EDUCATION

WIND CHILL CHART

Wind speed in MPH	ACTUAL THERMOMETER READING (°F.)									
	50	40	30	20	10	0	-10	-20	-30	-40
	EQUIVALENT TEMPERATURE (°F.)									
CALM	50	40	30	20	10	0	-10	-20	-30	-40
5	48	37	27	16	6	-5	-15	-26	-36	-47
10	40	28	16	4	-9	-21	-33	-46	-58	-70
15	36	22	9	-5	-18	-36	-45	-58	-72	-85
20	32	18	4	-10	-25	-39	-53	-67	-82	-96
25	30	16	0	-15	-29	-44	-59	-74	-88	-104
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109
35	27	11	-4	-20	-35	-49	-67	-82	-98	-113
40	26	10	-6	-21	-37	-53	-69	-85	-100	-116
Over 40 MPH (little added effect)	LITTLE DANGER (for properly clothed person)				INCREASING DANGER (Danger from freezing of exposed flesh)			GREAT DANGER		

OUTDOOR PHYSICAL EDUCATION

1.	Frisbee Toss (accuracy)	(1)
2.	Run and Summersault Relay	(1)
3.	Endurance Race (around island)	(1)
4.	Football Throw	(1)
5.	Leap Frog	(2)
6.	Kickball (for distance)	(1)
7.	Run--Playfield to Totem Pole and back	(1)
8.	Tug-O-War	Team

#3 and 7 -- Double points.

WAUKESHA PUBLIC SCHOOLS

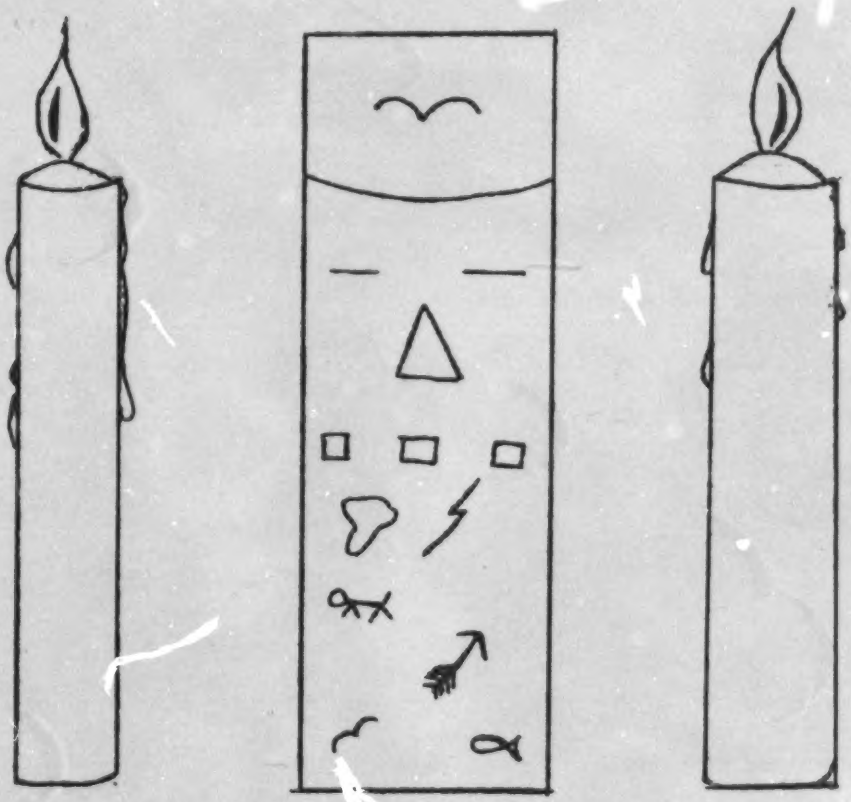
OUTDOOR EDUCATION

RELAY RACE

1. Start - Olympus Tent
2. Horsehitch Near Oak Tree
3. Raggers Point
4. Chapel
5. Horse Stable
6. Totem Pole
7. Rifle Shack
8. Boat House
9. Back porch (south side) Alford Lodge. Finish

CANDLELIGHT CEREMONY

The Candlelight Ceremony is so aesthetic and personal in nature that it is difficult to define. It is also another free expression area. It takes place in a subdued atmosphere. The theme of the ceremony is love, happiness and hope. Each point is discussed by a pre-selected student or students. After a presentation, a correlating song is sung by the group. A time is provided, for those who choose to use it, to express a 'gut' feeling to the group.



WATER POLLUTION TESTS

1. Materials needed for tests:

   a. spatula (little plastic spoon)
   b. eye dropper
   c. baby food jar (fill 3/4 full with lake water)
   d. calibrated tube
   e. chemplate
   f. white sheet of paper (place under chemplate when performing tests)
   g. directions (2 sets - white sheet, yellow sheet)

2. Read total directions before beginning any experiment.

3. Obtain your chemicals from the designaged letter station and return your chemicals to that same station. A or B or C or D.

4. Ask for chemical by using the total and proper name.

5. Never more than 1 chemical at your place at a time.

6. Use the chemical and return immediately.

7. Chemplate cavities are numbered. Cavity number and experiment number should be the same.

8. After completing an experiment place some of mixture in the proper cavity and save until you are finished. Eleven cavities should have a sample in when finished.

9. When directed to wait a period of time for the chemicals to work, begin the next experiment and go back after the time limit has run out.

10. The number at your station indicates which experiment you should begin with. Follow in order thereafter until you have completed all 11 experiments. Example: 7, 8, 9, 10, 11, 1, 2, 3, 4, 5, 6.

11. Record all results on your answer sheet.

12. If an experiment does not turn a particular color, this doesn't mean the experiment was a failure. What does it mean?

13. A cavity 2/3 full is 32 drops.

14. Rinse your calibrated tubes after each experiment so that they do not become contaminated.

15. Rinse clean and return all materials when finished.

LAB-AIDS® # 19 A QUALITATIVE INTRODUCTION TO WATER POLLUTION KIT

Student Worksheet and Guide

This kit provides the necessary materials and methods for detecting various common water pollutants.

1. Read the instructions carefully before starting any experiment. Measure the chemicals carefully.
2. It is essential that all materials used be clean in order to obtain accurate results.
3. Replace caps and covers of vials and bottles immediately after use to prevent contamination.
4. Where possible, water samples should be drawn closely as possible to the source of supply. Avoid turbulence or air bubbles when filling sample bottles.
5. Carefully record procedures and observations for each sample tested.

I Ammonia nitrogen

Procedure:

1. Measure a 10 ml water sample into the calibrated tube.
2. Add 1 drop of Ammonia Test Sol. # 1 to the water sample. Mix.
3. Add 8 drops of Ammonia Test Sol. # 2 to the water sample. Mix.
4. If ammonia nitrogen is present in sample, a yellow color will develop. Allow 8–10 minutes for full color development.

   (Note: The sample can be poured into the large well of the Chemplate™ to await the time.)

II pH

Procedure:

1. Place a small sample of the water to be tested (8–10 drops) in a cavity of the Chemplate™.
2. Add 1 drop of Universal pH Indicator and mix with the plastic spatula. Compare the color that immediately appears with the list below:

pH 1	cherry red	pH 6	yellow
pH 2	rose	pH 7	yellow-green
pH 3	red-orange	pH 8	green
pH 4	orange-red	pH 9	blue-green
pH 5	orange	pH 10	blue

III Chlorine

Procedure:

1. Fill a Chemplate™ cavity approximately 2/3 full with the water to be tested.
2. Add 2 drops of Chlorine Test Solution and mix with the plastic spatula.
3. If chlorine is present, a yellow color will develop. Allow 5 minutes for full color development.

IV Chromium (chromate)

Procedure:

1. Measure a 10 ml water sample in a calibrated tube.
2. Add a level spatula of the Chromate Indicator Powder. Replace the cap and mix the sample until the powder is dissolved.
3. A reddish-purple color forms in the presence of chromate and the amount of color is directly proportional to the amount of chromium (chromate) present in the sample.

V Copper

Procedure:

1. Fill a Chemplate™ cavity approximately 2/3 full with a sample of the water.
2. Add 1 drop of Copper Test Sol. # 1. Mix and allow to stand for 1 minute.
3. Add 2–3 drops of Copper Test Sol. # 2. Mix and allow to stand at least 2 minutes but not more than 10 minutes.
4. An orange-colored solution indicates the presence of copper.

VI Cyanide

Procedure:

1. Measure a 10 ml water sample into the calibrated tube.
2. Add 2 drops of Cyanide Test Sol. # 1 and mix.
3. Add 2 drops of Cyanide Test Sol. # 2 and mix.
4. If cyanide is present, a pink color will develop which turns violet in a few minutes. Allow approximately 10 minutes for the color to develop.

VII Iron

Procedure:

1. Measure a 5 ml water sample in the calibrated tube.
2. Add 5 drops of Iron Test Sol. # 1. (This is 5% sulfuric acid – be careful.)
3. Add 1 level spatula of Iron Indicator Powder to the sample. Replace the cap and mix to dissolve.
4. If iron is present, a wine red color will develop. Allow 2 minutes for full color development.

VIII Nitrate nitrogen

Procedure:

1. Place approximately 3 ml of a water sample in the calibrated tube.
2. Add enough Nitrate Test Sol. # 1 (2 ml) to bring the sample up to 5 ml. Mix.
3. With the plastic spatula, add 2 level measures of Nitrate Indicator # 2 Powder.
4. Replace the cover and shake until the powder is completely dissolved.
5. If nitrate nitrogen is present, a very light pink color will develop (trace amounts). A reddish purple color will develop with high concentrations of nitrate nitrogen. Allow 5 minutes for full color development.

IX Phosphorous (phosphates)

Procedure:

1. Measure a 5 ml water sample in the graduated tube.
2. Add 15 drops of Phosphate Test Sol. # 1 and mix. Allow to stand 3–5 minutes. A light yellow color may appear.
3. Add 2–3 drops of Phosphate Test Sol. # 2. Replace the cover and mix.
4. If phosphate is present, a blue color will form immediately.

X Silica

Procedure:

1. Measure a 5 ml water sample in the calibrated tube.
2. Add 3 drops of Silica Test Sol. # 1 and mix.
3. Add 6 drops of Silica Test Sol. # 2 and mix.
4. Add 4 drops of Silica Test Sol. # 3 and mix.
5. Add 1 drop of Silica Test Sol. # 4 and mix.
6. If silica is present, a blue color will form immediately.

XI Sulfide

Procedure:

1. Measure a 5 ml water sample in the graduated tube.
2. Add 15 drops of Sulfide Test Sol. # 1 and mix. (Note: This solution has a high sulfuric acid content and care should be taken.)
3. Add 3 drops of Sulfide Test Sol. # 2. Mix and allow to stand for 1 minute.
4. Add 20 drops of Sulfide Test Sol. # 3 and mix.
5. If sulfide is present, a blue color will appear.

Student's Name _____ **Date** _____

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Water Pollution Tests Answer Sheet Experiment Number	Results
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	

1. Ammonia is a pollutant which can indicate the presence of animal waste in the water sample (urea). In order to test for ammonia we test for an element present in its chemical formula-Nitrogen. During this test another pollutant which may be present sometimes interferes with the color change so we add a solution which will not allow this interference to occur.

2. Water can pick up wastes which can make it react like vinegar. You may have tasted or smelled this. Scientists call this type of water acid like or acidic. On the other hand other wastes may give the water properties like milk of magnesia (a milky somewhat sweet tasting substances). These substances are called bases. Water should be neither basic nor acidic unless it contains pollutants.

3. Pure chlorine is a pollutant which may be present due to man's attempt to purify water by killing the small plants and animals which may live in it. Chlorine when added to water soon kills many of the small organisms which may be present in it but some chlorine may remain in the water and therefore is called a pollutant.

4. The element chromium is dangerous in water because it seems to cause cancer in animal flesh. It is used in industry to prevent wear out of parts by action like rusting.

5. The human body needs the element copper in very small amounts per day to develop normally. However large amounts of copper makes the human liver (the body watch guard against many foreign materials) work too hard and can wear out the liver. Sometimes copper is added to water supplies to kill off some organisms which give the water a bad taste. However, if an animal would drink water with too much copper in it the liver could become affected and the animal (including humans) would get sick and die.

6. Cyanide is a very dangerous compound which has been used in gas chambers to kill people. Sometimes water supplies become polluted with cyanide because it is used to finish metals in some manufacturing plants. The test for cyanide is extremely important.

7. Iron is an element which can be found in water supplies due to the water trickling through rock layers that contain varying amounts of iron ore. Iron may give the water a cloudy or rusty appearance or may be present without noticeable color. It may also give the water some taste.

8. Nitrates are essential for plant growth and are sometimes found in water supplies. If a water supply is high in nitrates small plants such as algae may become a problem due to their increased numbers. Nitrates are put into the soil by bean plant roots, manure, nitrogen fertilizer, sewage and waste from meat packing plants.

9. Phosphates are similar to nitrates in their ability to help small microscopic plants to grow. Phosphates are used by man to clean things in his home and factory and as soil fertilizers by farmers. Rain run off can pollute the streams or surface water with this compound and then excessive plant growth can make the water undrinkable due to color, smell, or the effect of these plants on the animals body.

10. Silica is sand like. It can occur in water due to small plants which build their shells (or outside structures) from this material then die and the shells dissolve leaving the sand in the water. If we heat this water the sand adheres to the kettle and produces a scale coating on the inside which is difficult to remove.

11. Sulfides are compounds that may smell like rotten eggs. They get in the water from plants dying and rotting in the bottom of the water bed. A very small amount of the sulfide material gives the water a bad taste or smell.

I. AMMONIA NITROGEN as a pollutant of water can be detected by the standard A.P.H.A. Method. This test can be interfered with by the presence of magnesium or calcium hydroxide as a precipitate. Ammonia Test Sol. #1 (Rochelle salt) is added (1drop) to the water sample to prevent this interference.

II. The pH of most natural waters falls within the range of 4 to 9. The majority of waters are slightly basic due to the presence of carbonate and bicarbonate. A departure from the norm for a given water could be caused by the addition of strongly acidic or basic industrial wastes.

pH measurement can be made either colorimetrically or electrometrically. The colorimetric method is employed in this kit but it should be noted that it is suitable only for rough estimation. A more complete study of pH can be performed with the LAB-AIDS #80 Introduction to pH Measurement Kit and the #81 pH Measurement/Indicator Kit.

pH measurement is made on all water samples because it can tell about the past and future reactions of water. Significant changes in the pH value of water may indicate that contaminants are being introduced.

III. CHLORINE is most commonly used as a disinfectant in water because it is effective against a wide range of microorganisms. If chlorine is present is the water for a few minutes, disease producing bacteria are destroyed.

The following procedure is intended for moderately polluted water, water in the process of purification, water treatment plant effluent, potable water in the distribution system, swimming pool water, and industrial cooling and process water.

Orthotolidine is the reagent used for determining available chlorine.

IV. Hexavalent CHROMIUM (Chromate) has a carcinogenic potential. Therefore it is good reason to protect a water supply used for drinking against its intrusion.

Chromium chemicals are widely used in industry and as corrosion inhibitors in cooling towers. The following procedure gives a test for hexavalent Chromuim only. The reactant is diphenylcarbazide.

V. COPPER is an essential element to the human body with the adult daily requirement estimated at 2.0 mg. Large doses may be harmful and can cause liver damage. 1.0 mg/liter of copper can impart a bitter taste to water. Copper may exist in water, sewage or industrial wastes in soluable form or as a precipitate on the suspended solids or both.

VI. CYANIDE may be present in water containing waste from metal finishing. It is extremely toxic.

VII. IRON is found in most natural waters. The amount varies from a trace to very large amounts in water contaminated by acid mine wastes.

VIII. NITRATE nitrogen may be present in small amounts in fresh domestic wastewater. Nitrogen is essential for plant growth, but the presence of excessive amounts in water supplies presents a major pollution problem. Nitrogen compounds may enter water as nitrates or are converted to nitrates from fertilizers, sewage, wastes from industrial and packing houses, farm manures and legumes. Nitrates in conjunction with phosphates stimulate the growth of algae with all of the related difficulties associated with excessive algae growth.

IX. Phosphorous (PHOSPHATES) is an important nutrient for aquatic plants. Phosphates are widely used in municipal and private water systems, in boiler feed water, household and industrial detergent formulations, fertilizers, and agriculture.

X. SILICA is present in natural waters in soluble and colloidal forms. A silica cycle occurs in many bodies of water containing organisms such as diatoms, that utilize silica in their skeletal structure. The silica removed from the water may be slowly returned by re-solution of the dead organisms.

Silica is deemed objectionable in water used for boiler feed as it may lead to the formation of a hard, dense scale which has an unusually high resistance to heat transfer.

XI. SULFIDE may be found in water, waste water and sludge as a result of microbial action on organic matter under anaerobic conditions and from certain industrial operations. Concentrations of a few tenths of a miligram/liter cause an objectionable rotton egg odor.

NAME_____ DATE_____

FILMSTRIP CHECKLIST—AIR

TRY TO FIND OUT: Read this section before you view the filmstrip. After you have seen the filmstrip, use your information to answer these questions.

1. What is air pollution?

_____

_____

2. What are some major sources of air pollution?

_____

_____

3. What are the names of some common air pollutants?

_____

_____

4. How is smog formed?

_____

_____

TEST YOURSELF: Circle T if the statement is true. Circle F if it is false.

1. Cars are a major source of air pollution. T F
2. Water and water vapor in clouds cause smog. T F
3. Carbon monoxide is a common air pollutant. T F
4. People can get away from air pollution by going to the country. T F
5. Noise is a kind of pollution. T F

TOPICS FOR DISCUSSION: Write down some of your ideas about the following questions. You may use your ideas in discussions with other students.

1. What can we do about the problem of air pollution?

2. Why is it so difficult to stop air pollution?

NAME _____ DATE _____

FILMSTRIP CHECKLIST--AIR

TRY TO FIND OUT: Read this section before you view the filmstrip. After you have seen the filmstrip, use your information to answer these questions.

1. What is air pollution?

Air pollution is a build-up of harmful materials in the atmosphere.

2. What are some major sources of air pollution?

Some sources of pollutants are car and truck exhausts, factories, power plants, home furnaces, burning dumps, and spraying equipment.

3. What are the names of some common air pollutants?

Some common air pollutants are carbon monoxide, hydrocarbons, nitrogen oxides, sulfur dioxide, dust, ashes, and sprays.

4. How is smog formed?

Smog is formed by nitrogen oxides and hydrocarbons mixing in the air and being changed chemically by sunlight.

TEST YOURSELF: Circle T if the statement is true. Circle F is it is false.

1. Cars are a major source of air pollution. (T) F
2. Water and water vapor in clouds cause smog. T (F)
3. Carbon monoxide is a common air pollutant. (T) F
4. People can get away from air pollution by going to the country. T (F)
5. Noise is a kind of pollution. (T) F

TOPICS FOR DISCUSSION: Write down some of your ideas about the following questions You may use your ideas in discussions with other students.

1. What can we do about the problem of air pollution?

2. Why is it so difficult to stop air pollution?

NAME_____ DATE_____

FILMSTRIP CHECKLIST--WATER

TRY TO FIND OUT: Read this section before you view the filmstrip. After you have seen the filmstrip, use your information to answer these questions.

1. How does agricultural run-off pollute our water?

_____

_____

2. How do industries pollute our water?

_____

_____

3. In what ways do you and your family add to water pollution?

_____

_____

4. How are pollutants removed from water in nature?

_____

_____

TEST YOURSELF: Circle T if the statement is true. Circle F if it is false.

1. Chemicals used to kill insects cause water plants to grow. T F
2. Water flowing rapidly in a brook removes pollutants. T F
3. The best way to prevent eutrophication is to use less water. T F
4. Soap, detergents, and human wastes are water pollutants. T F
5. Water is often used in cooling machinery in power plants. T F

TOPICS FOR DISCUSSION: Write down some of your ideas about the following questions. You may use your ideas in discussions with other students.

1. How does water pollution affect you and your community?

2. What can we do to keep the water of our environment clean?

NAME_____ DATE_____

FILMSTRIP CHECKLIST--WATER

TRY TO FIND OUT: Read this section before you view the filmstrip. After you have seen the filmstrip, use your information to answer these questions.

1. How does agricultural run-off pollute our water?

Excess fertilizers and sprays for killing insects are washed into our waterways and cause rapid growth of plants and death of animals.

2. How do industries pollute our water?

Many industries use water and discharge solid wates, water containing chemicals, and heated water into our waterways.

3. In what ways do you and your family add to water pollution?

Water from washing machines, toilets, dishwashers, tube, and sinks empties into sewers and eventually returns to the waterways of the land.

4. How are pollutants removed from water in nature?

Some pollutants settle out of the water. Some wastes are changed by oxygen mixed with the water. Other pollutants are changed by microorganisms.

TEST YOURSELF: Circle T if the statement is true. Circle F if it is false.

1. Chemicals used to kill insects cause water plants to grow. T (F)
2. Water flowing rapidly in a brook removes pollutants. (T) F
3. The best way to prevent eutrophication is to use less water. T (F)
4. Soap, detergents, and human wastes are water pollutants. (T) F
5. Water is often used in cooling machinery in power plants. (T) F

TOPICS FOR DISCUSSION: Write down some of your ideas about the following questions. You may use your ideas in discussions with other students.

1. How does water pollution affect you and your community?

3. What can we do to keep the water of our environment clean?

TEAM MEMBERS: _____

_____

_____

OUTDOOR EDUCATION

AWARENESS TEST

Place all answers on the answer sheet.
Mark 'A' on your answer sheet if you think the statement is true.
Mark 'B' on your answer sheet if you think the statement is false.

SECTION 1.

1. _____ Natural resources are resources that man has made such as cars or plastic.
2. _____ Non-renewable resources can be used again and again.
3. _____ Man can change his environment very much.
4. _____ Only green plants are able to capture the sun's energy and produce food.
5. _____ Man always makes his environment better when he changes it.
6. _____ We are using natural resources so fast that people in the future may not have enough.
7. _____ The best way to preserve wildlife is to put it in zoos.
8. _____ Natural areas, if left alone, stay the same.
9. _____ Erosion is a natural process which man can do nothing about.
10. _____ We are using our resources faster because we want more things and we want more trade.

For questions 11-20 mark on your answer sheet the letter above the word that means almost the same as the word in the left column.

SECTION 2.

		A	B	C	D
11.	Conservation _____	using	preserving	wasting	watering
		A	B	C	D
12.	cycle _____	circle	square	circus	pamphlet
		A	B	C	D
13.	precipitation _____	rainfall	springs	rivers	mineral resources
		A	B	C	
14.	returnable _____	throwaway	reusable	partway	turntable
		A	B	C	D
15.	recreation _____	work	play	road building	school
		A	B		D
16.	erosion _____	building up	precipitation	wearing down	spraying
		A	B		D
17.	evolving _____	turning wheels	falling leaves	slowly changing	running water
		A	B		D
18.	atmosphere _____	temperature	ground water	air	soil
		A	B	C	D
19.	soil _____	stream	solid	cliff	earth
		A	B	C	D
20.	pollution _____	waste	vacuum	atmosphere	running water

MULTIPLE CHOICE

For Items 21-27 mark on your answer sheet the letter of the words which make the sentence true.

SECTION 3.

21. Using the same forest area for lumber, camping, hunting, and hiking is an example of:
    a. multiple use.
    b. zoning.
    c. succession.
    d. farming.

22. Taking care of natural resources to prevent destruction or neglect is called:
    a. biology.
    b. conservation.
    c. multiple use.
    d. zoning.

23. The atmosphere affects:
    a. only people working out-of-doors.
    b. only people working at night.
    c. everyone.
    d. only people in cold climates.

24. Your environment is:
    a. living things in your community.
    b. non-living things in your community.
    c. everything that is around you.
    d. the sun and its planets.

25. Ecology is the study of the relationships between:
    a. living things and environment.
    b. man and weather.
    c. plants and animals.
    d. birds and bees.

26. Conservation is the responsibility of:
    a. industry.
    b. farmers.
    c. teachers.
    d. everyone.

27. Which of the following is the original source of energy on our earth?

a. sun.

b. moon.

c. animals.

d. atomic generators.

MATCHING

For questions 28-37 indicate the letter of the word or phrase on the right that matches the word on the left.

SECTION 4.

28. fossil	a. natural power
29. extinct	b. plants and animals must have each other
30. energy	c. rock-like remains of a plant or animal of the past
31. consuming	d. no longer alive
32. interdependence	e. using
33. organism	f. materials obtained from the ground
34. minerals	g. can be used again
35. decay	h. living plant or animal
36. recyclable	i. the world around us
37. environment	j. the breaking down of something

For questions 38-46 three answers are correct. Mark on your answer sheet the letter of the answer that is not correct.

SECTION 5.

38. Pollution may result from

a. frost killing plants.

b. not enough sewers.

c. people not trying hard enough to prevent it.

d. too much waste.

39. Soil should be

a. kept fertile.

b. abandoned when it won't produce.

c. built up.

d. conserved.

40. Living plants furnish material for
    a. food.
    b. clothing.
    c. metals.
    d. shelter.

41. People can preserve natural resources by
    a. using them as they want to.
    b. careful planning for the future.
    c. substituting something for the future.
    d. reusing natural resources as much as possible.

42. When we learn more about our environment we
    a. can improve it.
    b. control things that harm it.
    c. try to make it better.
    d. do as we please.

43. Water
    a. may be used again if cleaned.
    b. is easily contaminated or polluted.
    c. may be used only once.
    d. is important to all forms of life.

44. Water pollution comes from
    a. industries.
    b. cities.
    c. farms.
    d. marshlands.

45. People can help the environment by
    a. putting all the blame for pollution on the factories.
    b. using soil conservation practices on their farms.
    c. picking up litter.
    d. doing less burning.

46. A wildlife refuge closed area is a
    a. place for hunters to shoot ducks.
    b. sanctuary.
    c. place to manage wildlife.
    d. place to save endangered species.

TEAM MEMBERS: _____

_____

_____

OUTDOOR EDUCATION

AWARENESS TEST -- ANSWER SHEET

SECTION 1.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

SECTION 2.

11.
12.
13.
14.
15.
16.
17.
18.
19.
20.

SECTION 3.

21.
22.
23.
24.
25.
26.
27.

SECTION 4.

28.
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30.
31.
32.
33.
34.
35.
36.
37.

SECTION 5.

38.
39.
40.
41.
42.
43.
44.
45.
46.

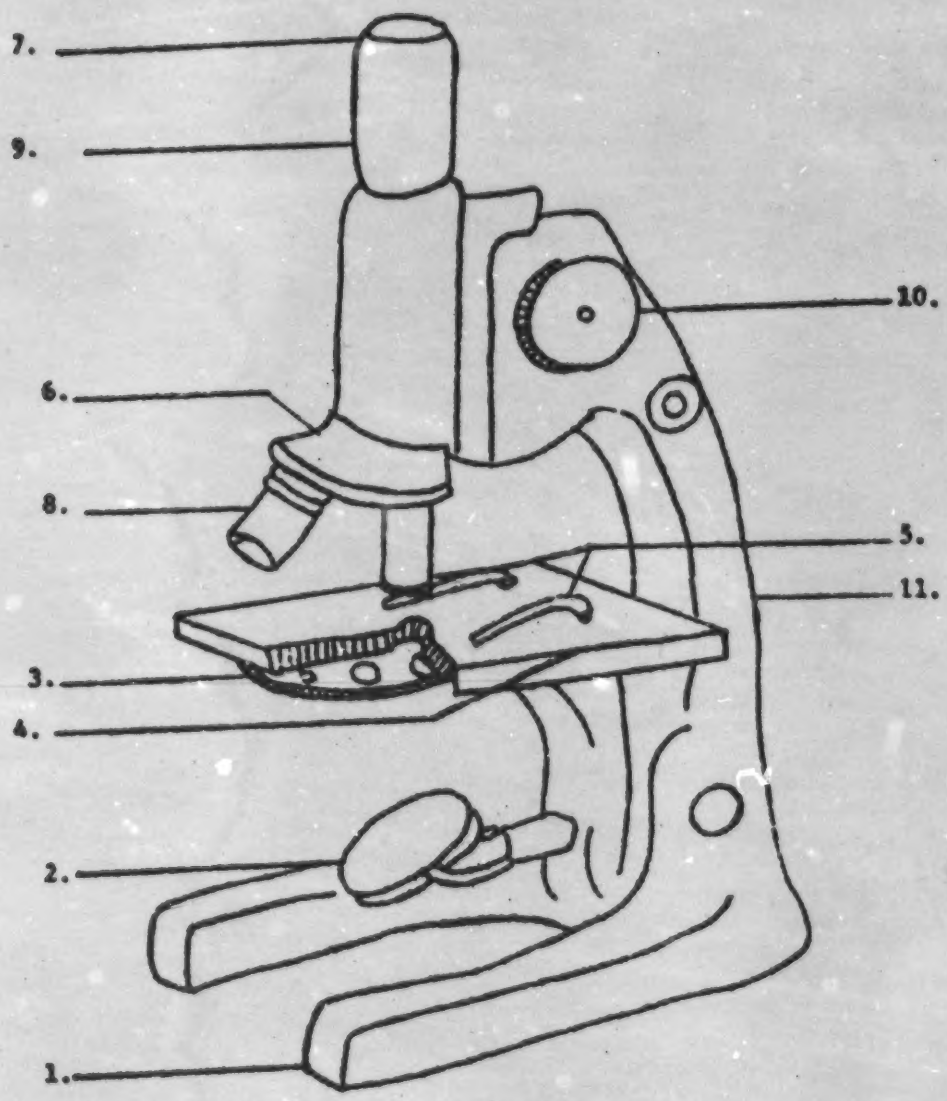
Identifying the parts of the MICROSCOPE: Identify the parts of the microscope pictured below. Place the name of the part in the blank beside it.

TEAM MEMBERS

_____

_____

_____



WAUKESHA PUBLIC SCHOOLS

OUTDOOR EDUCATION

Dear Parents:

Your child and his class are beginning to make plans for their opportunity to spend three days and two nights at Camp Phantom Lake, under the guidance of his classroom teacher and several other assistants.

These three days are set for: _____

Camp Phantom Lake is located in Mukwonago, Wisconsin about 20 miles from Waukesha.

There the class will study nature and conservation while enjoying the outdoors as a part of well rounded living. The class will help prepare the program and help serve the meals along with other duties in the kitchen, tents and grounds.

At camp the students will sleep in a heated lodge. Mattresses and cots are supplied. Each student brings his own sheet, pillow, pillow case and sleeping bag or blankets. Washing and lavatory facilities are available in Erich Lodge. There is a dining hall and a main lodge available.

The boys and girls and their teacher realize that this undertaking will need your cooperation and that of many others. The overall cost of this program is $20.00 per pupil. Each student is assessed $10.50. The remaining portion is covered by the Waukesha Board of Education.

More information will be made available at a later date as well as a meeting with you at which time questions can be asked and slides will be presented.

Sincerely,

J.A. Vitale
Coordinator, ODE

STUDENT NEEDS

Please bring only what is on this list!

Bedding

3 blankets or sleeping bag
1 sheet
1 pillow

Toilet Articles

Comb and/or brush
bar of soap
wash cloth and towels
tooth brush and tooth paste
handkerchiefs or kleenex

Clothing

Warm jacket or coat
cap, hat or scarf
Proper foot gear — according to the season
warm sweater
one extra pair of shoes
1 pair pajamas
3 changes of outer clothes
3 changes of underclothes
gloves or mittens

Additional Items

Flashlight
square of white cloth (16" x 16")
book to read during rest period
T-shirt or light colored sweatshirt for silkscreening
one large plastic garbage bag
two pencils -- sharpened

WAUKESHA PUBLIC SCHOOLS

ODE Permission Slip

Dear Parents:

On _____ your child will be given the opportunity to participate with his/her class in an Outdoor Education Program at Camp Phantom Lake in Mukwonago, Wisconsin.

We will depart from _____ School on _____ at _____ and we will return to school at approximately _____ on _____.

My child _____ has permission to participate with his/her class in the Outdoor Education Program being conducted at Camp Phantom Lake in Mukwonago, Wisconsin.

_____

Parent's Signature

WAUKESHA PUBLIC SCHOOLS

MEDICAL INFORMATION

ODE

Dear Parents:

The following information will be very helpful to the teachers in providing the best conditions for your child while at Camp Phantom Lake.

Student's Name _____ Age _____

Address _____ Phone _____

Parent's Name _____

Address _____ Phone _____

Family Doctor _____ Phone _____

Health Information - Please explain any affirmative answers.

1. Any recent sicknesses that need special attention or consideration?
2. Any food allergies?
3. Any medicine that should be taken regularly?
4. Any physical handicaps which require special consideration?
5. Any habits that require special attention?
6. Any other information which would be helpful at camp?

Sincerely yours,

J. A. Vitale
Coordinator, ODE

* ALL MEDICATION WILL BE COLLECTED AT CAMP AND DISPENSED AS PRESCRIBED.

DIRECTIONS TO CAMP PHANTOM LAKE

Highway F (East Avenue) to ES (old Highway 15). Turn right onto ES. Take ES to Mukwonago. Take ES west out of Mukwonago to Highway J (Elegant Farmer on corner) turn right onto J. Take J to Camp Phantom Lake private drive. (first right turn after railroad tracks. Many mailboxes there)

Park in parking lot. Walk down access road to Erich Lodge (dining hall, brown, on the lake, 2 blocks)

Please bring a flashlight.

WAUKESHA PUBLIC SCHOOLS
Outdoor Education
Student's Evaluation

Dear Students:

We would appreciate it if you would take the time to fill out the following evaluation of the ODE program in which you recently participated.

Thank you for your cooperation.

Sincerely,

J. A. Vitale
Coordinator, ODE

---

1. Are you glad you had the experience of ODE?

   yes _____ No _____

2. If there is the opportunity, would you like to go to camp again next year?

   yes _____ no _____

3. Do you feel that your group worked well together?

   yes _____ no _____ usually _____

4. Did you enjoy having the responsibility of helping to take care of your camp? Explain!

   yes _____ usually _____ too much to do _____

5. Do you think the legnth of camp was about right? If not, how long would you suggest?

   yes _____ no _____ I suggest _____ days

6. Did you make any new friends in camp?

   yes _____ no _____

7. Do you understand others better because of camping with them? Explain.

   yes _____ no _____

8. Tell about each subject about which you learned something of importance while at camp.

9. Did you take part in any new experience of adventure that you think you will remember? Explain what it was.

yes _____ no _____

10. Do you feel that we could have done more in the classroom in preparing for camp? If so, what?

yes _____ no _____

11. What did you learn at camp that was new?

12. How did each counselor help at camp?

13. What makes a good camper?

14. What makes a poor camper?

15. What things did you like the most about camp?

16. Would you like to continue studying about any of the areas covered at camp? If yes, what areas?

yes _____ no _____

17. Do you now help with any jobs at home that you did not help with before camp?

yes _____ no _____

Which ones? _____

18. How did you get along with other boys and girls?

19. What did you learn at camp that will help make your school work easier and more interesting?

20. What would you suggest to improve camp for next year? Please feel free to make any suggestions about food, time for camp, activities, evening programs, helping in camp, or other things that you may wish. (Use reverse side if necessary.)

WAUKESHA PUBLIC SCHOOLS
Outdoor Education
Parent's Evaluations

Dear Parents:

We would be most appreciative if you would respond to the following statements regarding the Outdoor Education Program.

Thank you for your cooperation.

Sincerely,

J. A. Vitale
Coordinator, ODE

The ODE program in general:

The length of the program:

Benefits derived by your child from the program:

Cost:

TREES FOR TOMORROW CAMP
Eagle River, Wisconsin

CONSERVATION ORIENTATION CROSSWORDS

Across

1. Abbreviation "that is"
2. Term for resources that can be restored
7. Abbreviation - bachelor of arts
8. Plant parts that are an aid in one of the treatest processes in transfer of solar energy and materials into forms very important to man
10. Soils may ____ by action of wind, water, and other geological processes with much loss in value to mankind.
13. After birth of Christ
14. Abbreviation of northeast
15. Abbreviation "in regard to"
17. That resource which the laws of conservation dictate "that man shall live with as well as live on"
20. In the winter, deer are sometimes forced to browse on sub-standard foods that are hard to ____ and result in malnutrition
22. A terrace on sloping land is as an ____ t ough on a roof
24. Plural and second person singular, present indicative, or verb "be"
25. What element of deer habitat may become scarce and critical in winter in northern areas?
27. Abbreviation "State of Virginia"
29. Instrument used in separating heavy precious minerals from soil or rock materials by use of water and agitation
30. One of the renewable natural resources that is renewed by the process known as the hydrologic cycle
32. A color visible in tree leaves in fall
33. Singular present indicative of verb "be"
35. Alternative
37. Negation
38. Prefix meaning "with" or "joint"
39. To establish forest trees on land never before forested. To plant trees on land formerly forested is to "reforest"
44. To act
45. A. U.S. Forest Service definition of conservation is "the greatest ____ to the greatest number in the long run
46. We (objective case)
47. One group of industries sponsoring Trees for Tomorrow
49. Female deer (plural)
50. One-half the width of an em
52. A resulting action of sun rays upon human epidermal tissue
55. A condition of water which lowers its quality for drinking
58. No ___ natural resource can be considered separate and ... from other res...
61. To ...el indignatinn at
62. Spa...sh "the"
63. Suffix meaning "salt" of an element in chemistry
64. Abbreviation "Eagle River"

CONSERVATION ORIENTATION CROSSWORDS

Down

1. All renewable natural resources are ____ and interrelated and, therefore, the management or treatment of one has effects upon the others
3. A river flowing from onetral Germany into the North Sea
4. A grouping of birds, animals, furbearers, fish, etc. considered as one of the main groups of renewable natural resources
5. Cry or call of the sheep
6. Equal
9. Abbreviation for element selenium
11. Material which is important as a part of the mixture as the earth's surface known as soil
12. An important big game animal in Wisconsin
16. Latin "and"
18. Prefix meaning "new or "recent"
19. Father
21. Fasten with stitches
23. Happening. Many ____ have had a tremendous effect upon our natural resources. The philosophy of "short rich and long poor" in logging our forest stands may be said to have been one of the ____ in the history of the forest resource
26. Word used to express a choice
28. Much ___ about nothing
31. Wise saying that has been much used
34. Accordingly
35. Either _____
36. Prefix meaning once more
40. A fairly large area of land covered with trees. The ___ represents one of the important resources considered in natural resource management or conservation
41. The first two letters in the three-letter abbreviation indicating price of an item loaded on the carrier at point of origination but not delivered at expense of supplier
42. Queer
43. Wise resource management under the laws of good conservation dictates that a resource be managed in order to ____ its yeild for the benefit of mankind
47. Companies from the _____ industry in Wisconsin also sponsor Trees for Tomorrow, Inc.
48. The Wisconsin River is termed the "hardest working river in the Nation", not because it is extremely ___, extremely deep or the longest river, but because the water is controlled and used over and over again through a series of reservoirs and power dams
51. Does "conservation" mean "hoarding"?
53. Paper making is one of the ___ that was originated by the Chinese
54. Surname of an American humorist

CONSERVATION ACROSS Cont'.

65. A mixture of mineral and organic matter at the earth's surface that is one of the essentials for sustaining plant life

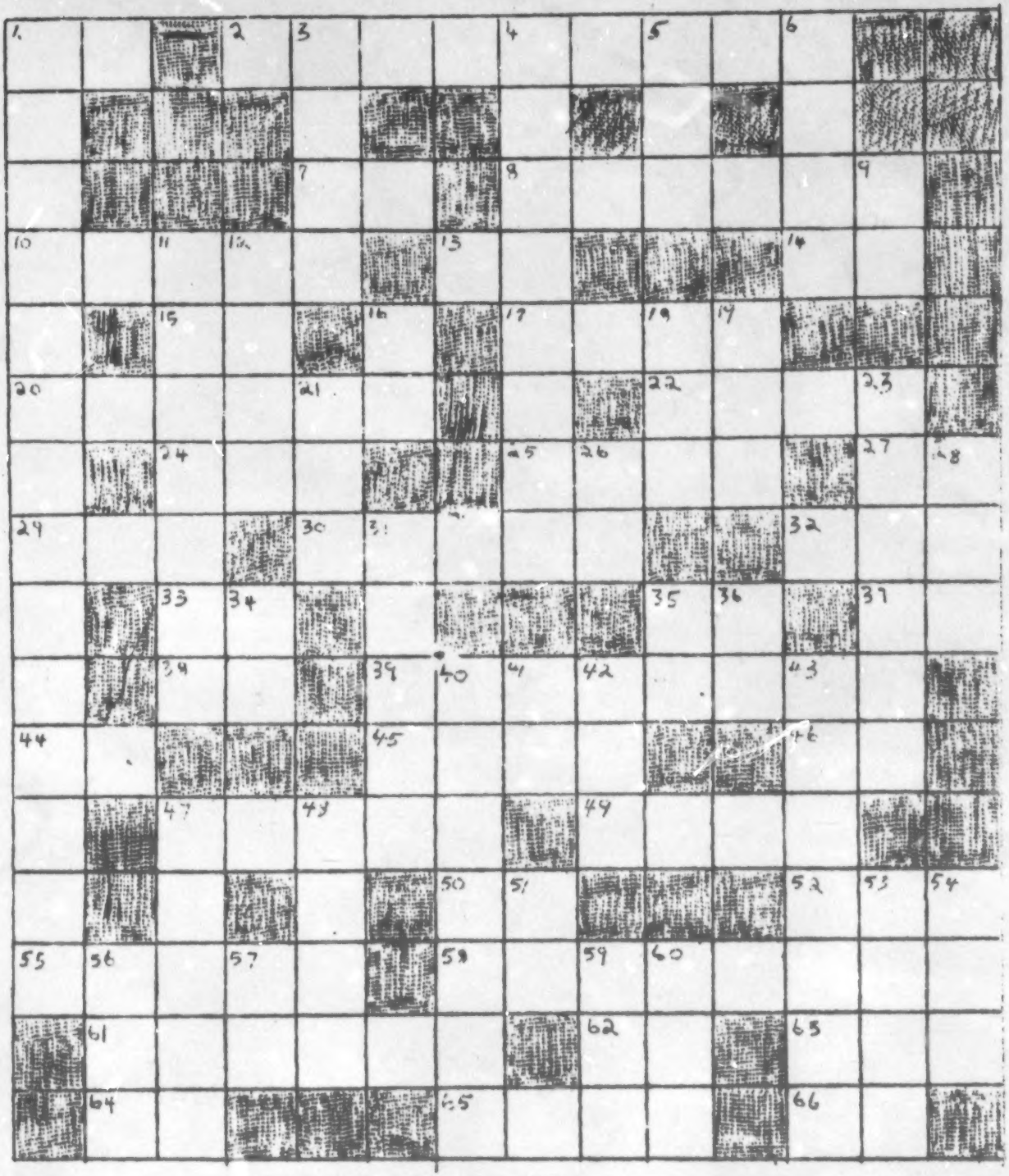
66. Abbreviation "Nova Scotia"

CONSERVATION

Down Cont'.

56. Before
57. Exists
59. Hawaiian floral arrangement
60. We can ___ afford not to practice wise resource management with an expanding population and a generally declining storehouse of resources

CONSERVATION CROSSWORD PUZZLE



WAUKESHA PUBLIC SCHOOLS

ODE - WORD SCRAMBLE

NAME _____

SCHOOL _____

A	C	E	X	F	Y	W	H	K	V	N	S	O	T	L	N	P
I	F	H	O	D	E	Q	T	H	U	A	Z	W	B	Y	C	X
D	P	W	E	V	F	U	G	O	T	M	S	I	A	R	Y	J
Q	K	H	R	P	L	F	M	L	O	N	A	Z	B	M	Y	C
X	D	W	A	P	Q	N	H	I	E	W	Y	K	C	J	P	O
I	T	H	G	N	E	L	A	H	F	S	T	A	I	T	E	M
O	O	N	G	T	T	H	E	S	M	A	X	Y	T	E	L	E
P	M	H	E	G	O	O	N	E	S	U	P	E	I	R	I	N
A	B	T	R	E	Y	N	M	C	M	A	T	E	I	T	N	A
D	S	C	S	E	H	Z	T	L	E	N	R	O	L	Y	L	M
I	T	I	N	D	T	S	I	I	A	P	G	E	E	O	P	L
E	C	S	O	C	E	C	H	N	J	K	R	O	X	O	L	N
L	N	O	U	U	I	H	F	C	D	S	E	R	I	C	N	E
N	E	A	G	U	X	E	K	N	E	K	E	S	H	A	A	W
I	M	S	C	O	N	R	V	E	L	S	N	W	I	N	N	B
O	Y	S	A	C	N	O	I	T	L	D	M	G	L	I	D	R
L	S	I	W	I	F	K	C	E	I	E	A	Q	W	U	L	E
L	R	S	T	A	R	E	K	R	M	S	N	V	H	O	E	R
S	S	T	A	B	L	E	S	E	N	W	S	A	M	T	N	E
R	D	O	C	K	T	O	B	R	A	N	I	U	R	S	S	E
C	L	I	T	O	Y	T	U	R	G	E	O	U	N	E	L	Y
E	A	L	F	O	R	D	R	A	G	Y	N	E	S	H	S	E
K	P	U	N	K	S	C	G	O	O	N	S	T	S	I	N	K
A	A	M	I	L	P	S	Q	L	B	E	R	A	V	L	E	C
S	C	P	A	R	E	T	E	M	O	M	R	E	H	T	P	O
E	H	O	N	R	P	I	E	R	T	H	S	I	L	O	L	H
L	E	O	M	A	O	T	S	F	O	O	D	B	M	N	E	K
A	L	S	P	P	G	E	T	T	Y	S	B	U	R	G	I	C
Z	U	T	Z	A	A	E	Q	P	U	I	P	V	M	E	N	O
T	R	I	C	H	Q	S	A	R	C	A	N	N	O	N	D	N
C	R	O	O	R	N	I	S	D	I	M	A	P	A	E	T	K

PHANTOM LAKE
ERICH
YMCA
HILTON
SIOUX
APACHE
SHILOH
GETTYSBURG
VICKSBURG
THERMOMETER
COMPASS
CLINOMETER
ANTIETAM
CHEROKEE
ALFORD
STABLES
TOBOGGAN HILL
RAGGERS
SWAMP
TOMBSTONE
GREEN MANSION
CANNON
HAND LENS
ODE
KNOCK-HOCKEY

WAUKESHA PUBLIC SCHOOLS

NATURE OBSERVATIONS - PHANTOM LAKE

D	L	I	N	H	B	H	O	S	L	M	S	Q	U	E	L	DEER
E	E	N	M	A	I	R	Y	Y	H	O	N	P	E	S	M	MICE
M	I	E	T	M	D	L	R	A	R	E	A	I	B	N	R	FLICKER
K	E	J	R	U	N	E	L	J	L	A	K	I	A	R	Z	BLUE JAYS
M	E	E	R	C	L	A	R	E	I	C	E	E	L	K	P	OAK
L	I	C	N	E	F	O	R	U	S	C	S	O	T	P	O	HICKORY
F	L	I	C	K	E	R	E	L	A	N	D	S	I	E	W	RABBITS
S	V	M	E	A	N	Y	E	E	A	R	S	A	M	S	G	ACORN
C	O	O	U	O	R	F	A	T	H	A	E	R	O	W	S	CATBIRD
A	B	H	O	R	S	E	S	R	O	B	U	G	R	O	H	RACCOONS
R	T	F	C	R	O	W	D	T	H	E	U	P	E	R	O	ICE
L	S	N	A	I	L	S	N	T	H	I	I	S	O	R	C	ROBINS
E	O	N	T	I	N	R	E	N	T	T	C	A	R	A	N	MAPLE
T	E	E	W	N	A	A	T	I	O	S	H	K	I	R	C	BALTIMORE ORIOLE
T	O	K	N	C	E	C	I	V	E	D	I	N	O	S	L	SNAILS
A	I	L	A	E	T	C	Y	F	O	O	D	A	L	R	N	SNOW
N	D	E	D	L	I	C	C	A	T	E	D	T	E	O	Y	LAKE
A	T	C	N	E	P	O	R	S	O	F	I	R	E	P	O	SWAMP
G	S	A	C	O	R	N	I	N	T	I	O	N	T	H	A	HILL
E	T	T	A	L	T	S	L	O	M	E	Q	Z	O	U	P	FOOD
R	A	E	R	E	C	R	E	W	A	I	T	E	D	S	O	SCARLET TANAGER
M	E	I	M	E	S	N	A	F	R	E	C	C	R	S	E	FIRE
A	T	R	E	E	D	W	Q	U	I	E	E	E	F	N	A	FISH
N	D	D	S	L	O	A	A	R	E	S	S	O	M	I	E	HORSES
W	O	M	E	N	P	S	E	M	C	R	H	E	T	B	A	SNAKES
R	Y	E	O	H	P	A	M	I	P	T	S	H	E	O	J	GRASS
V	G	R	A	S	S	I	N	T	A	L	E	B	O	R	B	SPARROWS

SEEK-A-WISCONSIN-BIRD-SCRAMBLE

E T R K O E L O I R O E R O M I T L A B
T O E R I V D E Y E D E R A S N W C R A
I F L A B O E Y A J E U L B V O B O I L
H A G L L D G N I L R A T S D E S N T D
W W A W U G R O B T O W H E E P N E L E
B O E O E N E S S I N D R E R F L A R A
C R N D B I T N O H R R N E R G C X S G
B R E A I N D C I A A D Y V N O J R C L
A A D E R R N U L B R W U I T D N E O E
N P L M D U F L C E O G K C U D D O O W
K S O D J A O H K K I R E D S T A R T K
S G G U P M L C M V H N C F I K E L S M
W N Y N S A I N B R R A P R T W A F A F
A O V R W L T D E E F G W H I N K R P T
L S U A F E G E V K N R U K I O F N S E
L A M T R A D O N F C H I D S T A H U N
O F A B R L L U G G N I R R E D R N C H
W H N P L P S C R U V A H W H I B R K T
N A T I W R A N O E C H I C K A D E E N
E S K T G R O S O N P P T E E J L T R A
T M O G N I W X A W R A D E C R H K I S
K I N G F I S H E R Y N B J H R I C T A
O L S I R E K C E P D O O W U V M A A E
K U A H T N R E L B R A W S B E M L R H
S A D R I B G N I M M U H L T S E B I P

Bald Eagle
Baltimore Oriole
Baldpate
Bank Swallow
Barred Owl
Black Tern
Bluebird
Blue Jay
Bob-White
Cardinal
Cedar Waxwing
Chickadee
Coot
Crow
Egret
Flicker
Golden Eagle
Goshawk
Gyrfalcon
Heron
Herring Gull
Hummingbird
Junco
Killdeer
Kingfisher
Kinglet
Loon
Mallard
Meadow Lark
Mourning Dove
Osprey
Ovenbird
Pheasant
Plover
Prairie Chicken
Raven
Red-eyed Vireo
Redstart
Robin
Sapsucker
Shrike
Snowy Owl
Song Sparrow
Starling
Teal
Thrush
Towhee
Warbler
Wood Duck
Woodpecker

SEEK-A-NATIVE-WISCONSIN-TREE-SCRAMBLE

E N I P E T I H W O L L I W K C A L B S
L B A I C R S U H B F Y B L A C K A S H
P O E N E A N K I D O O W N O T T O C A
A G L W N E M J T K A O D E R S E P Q G
M B P E N Y F U E C H S A E U L B R U B
D E A M T U B A S S W O O D B I A F O A
E S M L E Y R E P P I L S T U N L A W R
R A R I S T E F R B Y R R E B K C A H K
W E E R O A Y H U R P A P E R E I R C H
Y T V E M L M T C I Y S D O O W N O R I
R I L D R K T F E H L F E X T S R N I C
O H I P F E H W I P H C E E B E U L B K
K W S I R N A H E R I L H S A D E R W O
C Q E N U S B N T F D N A M L E K C O R
I S U E M N I M L E N A C I R E M A L Y
H T R A F P L U R S B G E H W H U X L R
T K A H K U S R E L D E R B E R R Y E A
U R H C H I N K A P I N C A K R L O Y D
M O A M F W N C J B D O H L P U R C J E
R J W H O B K G R E E N A S H I A Y U C
E S T B O O F J A T S U C O L R R K N E
T A H R A P L U M S W E Y W A N E B I T
T J O K S K A O N I P R S M V R D G P I
I U R R A D E C D E R E A K C O L M E H
B A N E L P A M N I A T N U O M A H R W

Alder
American Elm
Balsam Fir
Basswood
Bitternut Hickory
Black Ash
Black Oak
Black Willow
Blue Ash
Bluebeech
Boxelder
Burr Oak
Butternut
Chinkapin Oak
Cottonwood
Chinkapin Oak
Cottonwood
Elderberry
Green Ash
Hackberry
Hawthorn
Hemlock
Ironwood
Jack Pine
Juniper
Locust
Mountain Maple
Nannyberry
Paper Birch
Pin Cherry
Pin Oak
Plum
Quaking Aspen
Red Ash
Red Cedar
Red Maple
Red Oak
Red Pine
Rock Elm
Shagbark Hickory
Silver Maple
Slippery Elm
Sumac
Sycamore
Tamarac
Walnut
White Ash
White Cedar
White Pine
White Spruce
Yellow Birch
Yew

WAUKESHA PUBLIC SCHOOL

TENT INSPECTION

TENT NAME_____ SCHOOL_____

	FIRST DAY	SECOND DAY	THIRD DAY
1. Boys/Girls at their bunks at attention. No laughing or talking.			
2. Bunks -- bed rolls unrolled, neat and orderly.			
3. Clothes hanging or in suitcases.			
4. Floor swept under beds.			
5. All gear stored.			
6. Floors swept and clean; cobwebs cleaned out.			
7. Toilet facilities clean and sanitary.			
8. No loose gear or personal items.			
9. Mattresses straight.			
10. Bunks in neat rows.			
11. Teeth brushed, hair combed and hands washed.			

School _____

Counselor _____

Boys-Girls

Place nine students maximum per tent. Use separate sheet for boys and girls.

Tent 1 _____ Tent 2 _____

Tent 3 _____ Tent 4 _____

Tent 5 _____ Tent 6 _____

* Please type on here and make dittos from this sheet. Two more copies than tent groups.

TABLEHOPPERS

1st Day

Lunch

Supper

2nd Day

Breakfast

Lunch

Supper

3rd Day

Breakfast

Lunch

Type on here. Two copies.

WAUKESHA PUBLIC SHCOOLS
OUTDOOR EDUCATION

STUDENT BEHAVIORAL EXPECTATIONS

1. Tablehoppers
   a. report to dining hall one-half hour before a meal.
   b. receive instructions at serving counter.
   c. one hopper at each table.

2. Meal Manners
   a. wait until grace is said before beginning your meal.
   b. speak in soft conversation tones.
   c. eat slowly.
   d. ask to please have a food passed to you and remember a thank you.
   e. the last person taking a food is responsible for obtaining more if needed.
   f. sit at a different table each meal with different classmates.
   g. help scrape and stack all utensils at your table.
   h. please remain at your table until you are excused.

3. Safety Rules
   a. act in moderation
   b. use your head
   c. take it slow and easy

4. Independent Time -- You are permitted to do the following activities:
   a. rest
   b. check out binoculars (please keep strap around neck. Wrap strap around binoculars and lay flat when returning.)
   c. check out and use nature books (birds, insects, trees)
   d. nature hikes only when accompanied by a staff member.
   e. check out and use checker boards, mill boards or knockhockey boards.
   f. outdoors is permitted -- remain on island.

5. Equipment
   a. each student is responsible for the equipment used.
   b. please treat all equipment with respect.
   c. bathrooms should be used for reasons intended and the equipment used for reasons intended only!

6. Attitudes
   a. accept each person as he is. Give him a fair shake.
   b. be tolerant and patient with each other.
   c. develop as many new friends as possible.
   d. be understanding.
   e. think before you say it.

7. Nature Code
   a. leave the out of doors better than you found it.
   b. take only memories.
   c. only break silence.
   d. observe with your eyes and ears.

8. Outdoor Education Code R - O - C
   a. Respect -- all things, all people
   b. Obedience -- your supervisors
   c. Cooperation -- with everyone

9. Bunks
   a. Campers must arrange themselves in an alternating head-foot arrangement.
   b. No shoes on bunks.